

**Sharing of Benefits or Enclosure of the Commons? Investigating the Compatibility
of National and Local Access and Benefit Sharing Mechanisms in Peru.**

By Emily Catherine Taylor

A Thesis Submitted to Saint Mary's University, Halifax, Nova Scotia in Partial
Fulfillment of the Requirements for the Degree of Master of Arts in International
Development Studies.

Submitted October 1, 2008
Halifax, Nova Scotia

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Your file Votre référence
ISBN: 978-0-494-46164-8
Our file Notre référence
ISBN: 978-0-494-46164-8

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Sharing of Benefits or Enclosure of the Commons? Investigating the Compatibility of National and Local Access and Benefit Sharing Mechanisms in Peru.

Emily Catherine Taylor

Abstract

The Convention on Biological Diversity (CBD) declared that genetic diversity, considered for centuries to be the common heritage of humankind, would become the property of the sovereign state in which it is contained. The Convention also contained a special provision expressing respect for indigenous rights to their genetic resources. In 2002 Peru became the first country in the world to enact a national law for Protection of Traditional Knowledge. Prior to this legal regime, customary governance mechanisms of Andean communities have been the primary means of governing the conservation, use and sharing of genetic resources and traditional knowledge. The objective of this research project is to understand from the perspective of policy makers involved in the development of this law, as well as from the perspective of community members and a small grassroots NGO, how this law creates both opportunities and constraints for local governance mechanisms.

This thesis would not be complete without taking the opportunity to thank a number of individuals. First, I would like to thank my supervisor Ryan Isakson for sharing his knowledge and providing guidance throughout every stage of this process. Thank you for your time, openness, your understanding, and your willingness to be a part of this. I would also like to express gratitude to Jean Woo for your dedication and encouragement from day one. As always, you have gone over and above. Thank you to Herbert Zandstra, and Manuel-Ruiz for sharing your invaluable expertise. My field-work in Peru would not have been possible if not for the overwhelming care and support of Carmen DuBois, and Rosie Chavez and family. I will remember my time in Peru always. It is also necessary to thank all of those individuals who participated in the field-work stage of my research. It is only due to the generosity, openness, and insight of interviewees that this research project was possible. Thank you to my wonderful family for all of your kindness and support. Finally, thank you to Dan for all your humour, generosity, and most of all your understanding.

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EXECUTIVE SUMMARY:

The Convention on Biological Diversity (CBD) declared that genetic resources, considered for centuries to be the common heritage of humankind, would become the property of the sovereign state in which they are contained. The Convention also contained a special provision expressing respect for the rights of indigenous communities over their traditional knowledge. In 2002 Peru (a signatory of the CBD) became the first country in the world to enact a national law for the Protection of Traditional Knowledge. Prior to this legal regime, customary governance mechanisms of Andean communities have been the primary means for governing the conservation, use and sharing of genetic resources and traditional knowledge. Field research was carried out in Peru, to understand from the perspective of policy makers and legal experts involved in the development of this law, as well as from the perspective of community members and a small grassroots NGO, how this law creates both opportunities and constraints for local governance mechanisms.

A qualitative case study approach was designed in order to investigate how changes in biodiversity governance occurring at the international and national level will impact local governance mechanisms. In other words this research project was designed to investigate how the Peruvian Law for the Protection of Traditional Knowledge, shaped by the Convention on Biological Diversity, will impact customary governance mechanisms of the ANDES Potato Park. The Potato Park and ANDES NGO were chosen for this in-depth case study because ANDES and the communities of the Potato Park are currently working together to develop a local governance regime based on

customary governance mechanisms to protect their knowledge and resources. Field-work was carried out in Peru, to address the following research questions:

-In what ways does the Peruvian law for the Protection of Traditional Knowledge create opportunities to strengthen the ability of customary governance mechanisms of the ANDES Potato Park to manage traditional knowledge and associated biodiversity?

-In what ways does the Peruvian Law for the Protection of Traditional Knowledge threaten the ability of customary governance mechanisms of the ANDES Potato Park to manage traditional knowledge and biodiversity?

-How could the compatibility of the Law for the Protection of Traditional Knowledge and the customary governance mechanisms of the ANDES Potato Park be improved?

The first set of interviews were conducted in Lima with individuals who were involved in the development of the Law for the Protection of Traditional Knowledge, and/or are currently involved in the implementation of its principles, and/or have significant expertise regarding this piece of legislation. The second stage of data collection approached the same basic questions from the perspective of representatives of a grassroots NGO, and the six communities of the Potato Park. Data collection consisted of semi-structured interviews, one focus group and a community assembly meeting.

It was found that community governance mechanisms are important for a number of reasons. Most importantly, to protect the complex local systems in which traditional knowledge and genetic resources are embedded and to guide community conservation practices. Analysis of research findings indicated that the Law for the Protection of Traditional Knowledge poses a number of threats to community governance mechanisms. First, because the law is rooted in Western intellectual property law and is overly focused on the commercialization of these resources, it fails to adequately reflect the community's vision of the world. As a result the Law for the Protection of Traditional Knowledge does not address divergent ideas about what it means to "protect" traditional knowledge and genetic resources. Another major weakness, according to community members is that the Law proposes inappropriate decision making structures and legal tools resulting in fear and suspicion at the level of the community.

At the same time findings suggest that the Law for Protection of Traditional Knowledge supports community governance mechanisms in a number of ways. First, it is promising that both the state and community regimes for protecting traditional knowledge and genetic resources are flexible, dynamic and capable of responding to new realities. There is also mutual recognition and respect for decentralized decision-making with regard to these resources. Findings further indicate that the compatibility of these legal regimes can and must be improved in a number of ways. Indigenous peoples must participate meaningfully in the adaptation and implementation of this law, and new institutional and organizational structures are required to enable meaningful participation of indigenous

communities in decision- making processes. Finally, given the integral role and function of traditional governance in the maintenance and conservation of traditional knowledge and genetic resources, it is imperative that any national law for the protection of traditional knowledge strengthen rather than undermine these local mechanisms.

Introduction:

For centuries, customary law practices have been used to govern the conservation, use, and sharing of genetic resources and traditional knowledge. As a result of these practices at the community level, and its unique geographical context, among other factors, Peru remains one of the most bio-diverse countries in the world. Not only have communities been successful in preserving large amounts of biological diversity, but they have also been successful in using community knowledge to create new and valuable variations of traditional crops. The objective of this research project is to understand how the Peruvian law for the Protection of Traditional Knowledge, enacted in 2002, will impact customary governance mechanisms of indigenous communities in Peru and their conservation of traditional knowledge and genetic resources. More specifically the perspectives of policy makers and legal experts involved in the development of this law will be compared with those of community members and a grassroots NGO to understand of how this law creates both opportunities and constraints for traditional governance mechanisms. Fieldwork was carried out in Peru in order to investigate the following research questions:

- In what ways does the Peruvian law for the Protection of Traditional Knowledge create opportunities to strengthen the ability of customary governance mechanisms of the ANDES Potato Park to manage traditional knowledge and associated biodiversity?

- In what ways does the Peruvian Law for the Protection of Traditional Knowledge threaten the ability of customary governance mechanisms of the ANDES Potato Park to manage traditional knowledge and associated biodiversity?
- How could the compatibility of the Law for the Protection of Traditional knowledge and customary governance mechanisms of the ANDES Potato Park be improved?

The first three chapters of this thesis provide a review of the relevant literature. Chapter one provides a theoretical overview of the different approaches to natural resource ownership, including community-based co-management. The second chapter will then focus on the relationship of indigenous communities in Peru with their agro-biodiversity and traditional knowledge. The final chapter of the literature review will address the Peruvian law for the Protection of Traditional Knowledge in Peru as it relates to community governance of these resources. Following the literature review, the fourth chapter will outline the methodology and fieldwork component of the research project. Lastly, findings will be synthesized and analyzed respectively in the final two chapters.

Chapter One: Sustainable Development and Natural Resource Management

Abstract: The objective of this section is to first provide a working definition of sustainable development. Following, a typology of the major forms of natural resources ownership will be provided. Finally, the typology itself will be expanded to a multi-tiered governance framework, including an analysis of the potential of community-based co-management to contribute to sustainable development.

Sustainable Development: Defining a Moving Goal Post:

For the purposes of this paper sustainable development will be used to refer not only environmental protection (in this case the conservation of biodiversity), but also the sustainability of the culture, livelihoods, and way of life of those communities who have conserved, adapted, and continue to rely on these resources for their wellbeing. When using this term, it will be assumed that poverty reduction and environmental conservation are not competing, mutually exclusive goals. Rather sustainable development will be defined upon the assumption that rural poverty alleviation is a necessary precondition and complementary goal for environmental conservation of biological diversity. This definition is based upon the theoretical works of authors such as James K. Boyce who have argued that poverty alleviation is warranted not only as a basic human right, but also because poverty reduction is inextricably linked to global environmental conservation and maintenance (Boyce & Pastor, 2001).

Boyce challenges both advocates and opponents of stronger environmental protection, who argue that poverty reduction is an incompatible goal (Boyce, & Pastor,

2001). Instead, Boyce makes the case that global environmental protection is oftentimes contingent upon the well-being, and livelihoods of the poor. According to Boyce, this relationship is the result of two main factors: that poor people can choose to meet their daily needs and improve their livelihoods without harming the environment; and secondly so that poor rural communities can be empowered to resist the environmentally destructive activities of outsiders through democratic processes (Boyce & Pastor, 2001). Boyce's justification is based on his finding that the greatest threat to environmental preservation and maintenance is large inequalities in both wealth and power (Boyce 2001).

Therefore, based on this argument, sustainable development will be operationalized upon the assumption that poverty reduction and environmental protection are two sides of the same coin (Boyce & Shelley, 2003). While the relationship between rural livelihoods and biodiversity conservation will be explored in depth later in this literature review, it is necessary to claim from the outset that sustainable development, for the purposes of this paper, will be a complex and multifaceted concept including conservation of environmental resources, poverty reduction, and democratization of decision making.

Natural Resources Management and Sustainable Development

This literature review will begin by providing an overview of some of the key theoretical debates about the management of natural resources. A typology of the major approaches to natural resource ownership will be provided followed by an in-depth

overview of the potential of community-based co-management to contribute to sustainable development. Although information pertaining specifically to biological resources and biodiversity will be included in some instances, this section is meant to focus on natural resource ownership in its broadest sense before moving on to a more detailed analysis of biodiversity in the next section.

Typology of Natural Resource Management

Providing a comprehensive overview of the different forms of natural resource ownership is not an easy task. The convention is to categorize natural resource management into four major classifications- open access, state ownership, private ownership, and communal ownership. In reality resource management systems do not fit neatly into these compartments. It is important to note that contemporary environmental management systems are large and complex and in many cases continually evolve and adapt to new environmental, political and social demands (Paavola, 2006).

Environmental governance systems often combine multiple methods of environmental resource ownership, and are increasingly based on multi-level approaches, operating simultaneously at local, national, regional and international levels (Paavola, 2006). In many cases it is also necessary to distinguish between de facto and de jure rights in order to understand the impacts of the different management regimes (Cole, 2000). This being said, while a simplified overview of the different modes of natural resources may not be generalizable across every political, ecological and cultural setting, an introduction to this classification provides a useful model to begin thinking about the different strengths and weaknesses of each approach.

Open Access or *res nelius* Approach to Natural Management

Under a *res nelius* resource management regime (synonymous for the purposes of this paper with open-access) resources are considered to be “*non-exclusive in nature and the property of no-one*” (Berkes, 1995, 371). According to Berkes this form of ownership has two distinguishing characteristics. First, *res nelius* resources cannot be restricted from potential users, and secondly through the use of these resources each user inevitably compromises the welfare of others (Berkes, 1995).

Any discussion of open access regimes usually begins with a review of the famous parable, “The Tragedy of the Commons” offered by Garrett Hardin in 1968. In this seminal article Hardin proposed that the use open-access resources (which he incorrectly termed common resources) inevitably leads to environmental destruction and degradation (Appell, 1993). According to Hardin, under a *res nelius* regime, rational individuals would maximize short-term self-benefits by over-utilizing open-access resources, resulting in the destruction of these resources (Uphoff, 1998). The short-term benefits of this behaviour, would be greater for each individual, than the short-term costs for the same individuals resulting from the depletion of the common resources (Uphoff, 1998). Hardin concluded, “*ruin is the destination toward which all men rush each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all*” (Hardin, 1968, 1244). While Hardin’s article is widely contested to this day, he proposed that the only solution to the tragedy of the commons (or more accurately, open access) is state ownership, or privatization of open

access resources. While Hardin admits that state coercion, and privatization will not result in “perfectly just” distribution patterns, he proposed, “injustice is preferable to total ruin” (Hardin, 1968, 1247).

Hardin’s analysis constitutes the primary claim against this form of ownership. That is that open access resources will be exploited at an unsustainable rate unless some type of property rights regime regulates and enforces limitations on their use (Cole, 2000). In addition to the environmental concerns associated with open access regimes, this ownership regime is also criticized for resulting in an inefficient, and highly unequal distribution of benefits (Boyce & Shelley, 2003).

However, others argue that there are in fact some instances in which the costs of creating property rights and governance systems are too high relative to the value of the resources at hand, to justify the creation and enforcement of a property rights regime (Paavola, 2006). From this standpoint, whether or not a resource should remain ungoverned, depends to a large degree of the value of the resource, relative to the costs of governing this resource. Of course taking a political economy perspective, it also depends on who would be incurring the relative costs and benefits associated with regulation. As benefits associated with governance of a particular resource increase, or the costs to implement such a regime decrease, the justification for implementing an ownership regime is strengthened (Paavola, 2006), particularly when the benefits accrue to the politically and economically marginalized sectors of a population (Boyce & Shelley, 2003).

State Ownership of Natural Resources

Under a state-led regime, natural resources are considered public property, which fall under the jurisdiction of the government (Yandle & Morriss, 2001). Generally speaking, under a state-centered approach, governments assume responsibility for the governance, conservation, regulation and distribution of natural resources. This approach relies on regulatory tools such as government taxation, politically determining the bundle of rights¹ of different actors in society, and ensuring compliance with the state led regime (Yandle & Morriss, 2001). It is important to note that while a state ownership regime rests the regulation authority with the government, this approach may be practiced in coordination with other forms of ownership as dictated by the state.

The arguments for state ownership of natural resources, often relate back to Hardin's analysis of the Tragedy of the Commons. It is held, that state regulations are necessary to govern individual use of resources, such that there are constraints placed upon each individual's ability to consume natural resources and degrade the natural environment. Others argue that it is only through state led democratic decision-making processes that sustainable development goals can be achieved. While historically, state-regulationism has been the dominant approach to environmental conservation, over the last two decades there have been serious theoretical challenges levied at this approach to environmental conservation.

¹ The bundle of rights theory, is a commonly used metaphor in law and economics literature. It compares property ownership to a bundle of sticks, with each stick representing a property owner's right to that resource for example, the right to own land, to sell it, to give it away or to choose to exercise some, all or none of these rights.

Critics argue that state led approaches are inappropriate mechanisms for achieving sustainable development because they are often inequitable and inefficient. State led approaches have developed a reputation for undermining local capacities for natural resource management and exacerbating inequalities by transferring management power away from local resource users to inefficient centralized bureaucracies and corrupt political elites (Korten, 1986). State-regulationism has been further criticized for its inability to accommodate local conservation needs. Standardized rules are often inflexible and therefore unable to accommodate diverse needs and preferences of stakeholders, including those of community management systems (Korten, 1986).

Finally, there are those who argue that the democratic system itself is an unsuitable mechanism for decision-making regarding natural resources. From this point of view it is proposed that democratic societies often choose policies, which result in unsustainable use of natural resources where more powerful actors are still able to control the outcomes of the decision making process. According to Alston and Mueller, this may be due to a problem of education or sharing information with the public (Alston & Mueller, 2003). Similarly, others argue that the democratic system is an inappropriate mechanism for overcoming problems such as free riding, and democratic processes may result in sub-optimal decision-making (Corbera et. al, 2007). Some critics also point to the prevalence of government corruption as a major factor undermining states ability to achieve sustainable development goals (Deacon & Mueller, 2004).

Taking a more neutral stance on state led approach to natural resource management is Boyce, who argues that the potential of state ownership of natural resources to contribute to sustainable development objectives, is entirely dependant on the political and economic distribution of power within that country (Boyce & Shelley, 2003).

“Disparities of power and wealth influence not only how nature’s pie is sliced, but also its overall magnitude. When disparities are great, those at top of the political and economic ladder can more easily pollute the air and water and deplete the natural resource base of those at the bottom. When disparities are small, those on the bottom rungs of the shorter ladder are better able to defend themselves. A democratic distribution of power and an equitable distribution of wealth, therefore, can help to protect the environment. Conversely, an oligarchic distribution of power and an inequitable distribution of wealth can exacerbate environmental degradation” (Boyce, 2002, 1).

In other words, it is impossible to advocate for state ownership as the most appropriate form of ownership, without disaggregating the impacts of different political realities, as the results are highly dependent on the democratic accountability of that state and the distribution of wealth and power amongst its constituents.

Privatization of Natural Resources

In recent years, many states have moved away from state ownership of natural resources, increasingly granting private property rights to private owners. By definition, a private property regime exists when ownership vested in an individual or group of individuals is legally enforced, exclusive and transferable (Feeney et. al, 1990). This trend has led to a diminished reliance on organized, regulatory control (and even participatory processes)

and rather relies instead on the market and other voluntary structures to achieve environmental and sustainable development objectives (Lemos & Agarwal, 2006).

The primary argument for private property ownership of natural resources is that individual rights over resources allow for the creation of markets for environmental resources that will ensure that the resources are allocated where they achieve the greatest economic return. It is argued that this approach will contribute to social welfare indirectly by increasing the overall productivity of a society. Those who advocate for private ownership of natural resources, posit that private property regimes, maximize the total value of natural resources and ensure that these resources are distributed through the mechanisms of the invisible hand, to their most valued use(r)s (Posener, 1992). Private property rights over natural resources are seen by proponents of this approach, as a necessary pre-condition to ensure that markets can stimulate human innovation and ingenuity resulting in the most productive and efficient distribution of natural resources.

This said, there are a number of advocates of the privatization of natural resources who argue that privatization is not only the most efficient form of ownership, but also the most appropriate means for attaining sustainable development goals. The privatization of natural resources is now being promoted across developed and developing countries based on this logic with the aim of increasing the efficiency of natural resource

management and distribution through the commodification² of these resources (see text box below) (Corbera, Brown, 2007). Addressing, the conservation dimension, advocates argue that economic incentives are necessary signals for bringing about appropriate behaviours and uses of natural resources (Corbera et. al, 2007). On the poverty reduction front, it is proposed that private rights over natural resources may provide important income earning opportunities for rural populations, particularly those whose livelihoods depend directly or indirectly on ecosystem goods and services in developing countries (Millenium Ecosystem Assessment, 2003). Beyond offering diversified income earning opportunities, it is also believed by some that as markets become more economically efficient and environmentally effective, that the exchange of privately held resources, by virtue of the invisible hand, will provide a more equitable and efficient distribution of benefits associated with environmental goods (Bawa & Gadgil, 1997; Pagiola et. al, 2002).

The literature cautioning against the privatization of natural resources has been stimulated largely in response to the growing trend towards privatization in both the developing and developed world. The major critique of private ownership and the

² **Commodification of natural resources** is the process by which resources are given value, often for the purpose of making them interchangeable. In Marxist political economy, commodification takes place when a monetary value is assigned to something that was not previously considered in market terms. The commodification of natural resources is often criticized on the grounds that certain resources that are fundamental to the survival of humankind should not be for sale and rather should remain in the common heritage of humankind. As resources become traded commodities on the market there is concern that market values will replace social values and respect for basic human rights in regulating the management and distribution of natural resources. Also of great concern to critics is the risk that assigning private property rights to natural resources, will inevitably result in a situation where resources essential for human survival will be distributed in a grossly unequal fashion. That is those people who do not have the monetary resources to access these resources through economic transactions will no longer have access. Alternatively, wealthy and powerful segments of the population will consecrate their power further by securing the lion's share of these resources. Thus society is making a trade off: poor people's right to natural resources vs. rich people's right to private property.

resulting markets for environmental resources, stems from deep concerns about procedural fairness and equitable distribution of benefits. Critiques of the procedural fairness of this approach argue that natural resources are public goods, and that prices put on natural resources are not reflective of the overall social value embodied in them. As a result when natural resources are privatized those who benefit the most from the market exchange of these resources, are often not those who need the resources the most for their very survival (Corbera et. al, 2007).

This approach is further criticized for failing to recognize competing values and diversity of actors with stakes in environmental decision-making, particularly those of marginalized communities. Other critics caution that the privatization of natural resources is likely to favour the politically and economically powerful actors, and exacerbate existing inequalities.

Community Based Management of Common Property Resources

Under a community based- common-property regime, resource rights are held collectively by an identifiable community of interdependent users (Feeney et. al, 1990). Resources held under common ownership are by definition non-exclusive and non-transferrable, and are most often shared equally amongst users. The rights of users may be legally recognized and protected or, in other cases, these rights are *defacto* or come from the community of users themselves (ibid).

While “commons” are often differentiated from other forms of and property rights regimes, in reality the lines are quite blurry. In the literature, the commons are most often confused with open-access regimes (most famously by Garret Harding). In the case of open-access, resources are completely unregulated and remain free and open to everyone. Alternatively, in the case of successfully managed “commons”, the size of the community of users is often limited, and may be regulated in a highly sophisticated and effective manner by rules and regulation agreed upon and enforced by members of the community. Causing further confusion are the various roles that governments might play in protecting community commons. While commons, by definition cease to exist if they are formally regulated by the state, the subtlety is this: the state may, and in some cases must, play an important role in protecting the boundaries of the commons to prevent enclosure by other powerful actors. Finally, community commons differ from private property regimes in that ownership rights are not necessarily legally enforced, exclusive and are non-transferable (Feeney et. al, 1990).

Largely as a result of research that took place in the 1980s decentralized modes of environmental governance including community-based initiatives have gained increased credibility (Agarwal & Lemos, 2006). Proponents of community-based commons argue that many communities have effective self-regulatory mechanisms, to govern the resources on which they depend. Community based, common property regimes have been important in many traditional societies around the world and draw upon the traditional ecological knowledge within traditional communities (Berkes, 1995). Research has shown that often local communities can be quite efficient in managing their

own resources by making use of their shared contextual understanding of those resources (Berkes, 1995). Common resources held by a community tend to be indivisible (difficult to separate into commodities) and require collective decision-making, cooperation in management and use, and enforcement of an agreed upon set of rules by the community of users.

This approach includes but is not limited to indigenous systems of natural resource management, based on local values and knowledge and institutions. True community management refers to a system where community ownership and environmental management decisions are governed according to community based laws, norms and practices, rather than the conventions of the state (Paavoli, 2006; Alexander et al, 2003). There are three major arguments for this approach to natural resource management: that decentralized authority will lead to greater efficiency; that decision making should be done by those who will be most impacted by its consequences thereby empowering local users; and lastly, that decision makers will be able to make use of detailed time and place specific knowledge about the natural resources at stake (Lemos & Agarwal, 2006).

Ostrom for example, refutes the assumption in much of the policy literature that local governance of natural resources is inefficient, as well as the resulting policy prescriptions that optimal use requires either government intervention or private property rights (Ostrom, 1990). Scholars in this field have recorded thousands of independent instances of successful local governance initiatives (Lemos & Agarwal, 2006). This

approach is also justified on the basis of democratic accountability. Korten argues that in any democratic society, decision-making control must remain in the hands of those people who will be most directly impacted by the resulting consequences (Korten, 1986). The democratization outcome of community management cannot be separated from the poverty reduction goals of this approach. Pastor argues that it is imperative to increase the natural wealth of these communities in order to bring about significant and permanent reductions in poverty (Pastor, 2004). While mainstream development efforts to reduce poverty generally focus on increasing community incomes, this approach is often unstable at best in the long run. However, by increasing the natural wealth of communities and allowing local people to exercise their own governance structures presents a more holistic and lasting approach to poverty reduction (Langton et. al, 2005).

Finally, community based approaches, unlike state and private ownership regimes, allow for the use of traditional ecological knowledge, and indigenous natural resource management approaches to provide locally appropriate and sustainable approaches for the conservation and sustainable use of natural resources (Posey, 1996). For this reason, community based management may be particularly suited to the interests of indigenous communities as well as the need to accommodate different values and cosmologies. Thus, under community ownership regimes, proponents argue that resources can be governed not only by the desire to maximize their full economic potential, but also by the desire to conserve these resources as an end in itself, to express cultural identity, to lay claims on ancestral lands, to safeguard local food security, and finally to secure economic and political autonomy.

While community based natural resource management has gained steam over the last couple of decades it is not a silver bullet solution to natural resources management. Berkes points out that while there is a tendency amongst theorists to assume a united “we” amongst and within communities, there is in reality a great diversity amongst and within local community users. Accordingly while some communities are adept and capable of managing their resources in a sustainable fashion, others simply do not have the historical and cultural background to provide adequate self-regulation and conservation of community resources (Berkes, 1995). Secondly, it is very difficult for communities to enforce their governance mechanisms upon outside actors when there are problems of exclusion and subtractibility (ibid). From this point of view, it is argued that state support in the form of legal institutions and other forms of regulationism become essential to the enforcement of community-based rights and responsibilities (ibid).

Agarwal and Lemos further caution that in some cases the concept of community ownership is being used by powerful international actors as a further justification in the neoliberal project of rolling back the state (Lemos & Agarwal, 2006). According to these authors the trend towards community based management initiatives is largely a result of international pressure to undermine the role of the state as a reliable manager of the economy as well as the environment (Lemos & Agarwal, 2006). Following this line of reasoning, globalized pressures on states, including those imposed by international donor organizations as well as fiscal crisis in developing countries have left states with little

choice than to support the global trend towards community based management (Lemos & Agarwal, 2006). According to these authors,

Whether these changes have occurred because of the alleged advantages of decentralized governance or because of the significant flows of aid funds tied to decentralized governance is difficult to judge. But the shift in favor of decentralization has brought alternative means and new political claimants to the fore in the process of governance as nation states attempt to reclaim governance through partnerships with local organizations (Lemos and Agarwal, 2006, 303).

Table 1: Summary Chart of the Main Approaches to Natural Resource Management:

Type of Natural Resource Management	Definition	Contributes to Sustainable Development	Undermines Sustainable Development
Open Access	Resources are considered to be non-exclusive and the property of no one. Therefore resources cannot be restricted from potential users, and secondly through the use of these resources each user inevitably compromises the welfare of others.	-In some cases it depends upon what the cost of regulation will be, and who will incur that cost.	-Disproportional use by wealthy and powerful sectors at the expense of the marginalized. -Short term individual benefit maximization, results in long term depletion of resources. -Results in highly unequal use of resources
State Ownership	Governments assume responsibility for the governance, conservation, regulation and distribution of natural resources. This approach relies on regulatory tools such as government taxation, and politically determined rules to ensure compliance with the state led regime.	-State regulationism is needed to constrain and regulate the public use of natural resources to ensure long term sustainability and fair and equitable distribution. -If the national government is democratic, environmental decisions may be made through democratic processes.	-State regulationism may undermine local capacities for natural resource management. -The state may lack the resources or the will to prioritize environmental protection -Transfers management power away from local communities to state bureaucracies.

			-Imperfections in the democratic process, the risk of corruption and manipulation by powerful actors.
Private Ownership	-Private property regimes exist when ownership vested in an individual or group of individuals is legally enforced, exclusive and transferable.	-Private ownership rights establish individual incentives to ensure compliance with market based incentives and environmental goals. -Private ownership rights and resulting markets for environmental services may bring about important income earning opportunities and increase earning capacity of rural and/ or marginalized populations. -The invisible hand will result in a more equitable distribution of benefits.	-Prices for natural resources do not tend to reflect their long-term social value resulting in over-exploitation. -Those benefiting the most from private ownership rights are often not directly reliant natural resources for their survival, and the most marginalized will likely be excluded from benefiting. -Market signals do not reflect different interests and values, especially those of marginalized communities.
Community Based Common Ownership	-Under a common property rights regime, resources must be held by an identifiable community of interdependent users -Resources held under common ownership are by definition non-exclusive and non-transferable, and are most often shared equally amongst users. The rights of users may be legally recognized and protected or, in other cases, these rights are <i>defacto</i> or come from the community of users themselves (ibid).	-Decision-making should be done by those most affect by its consequences. -Makes use of detailed time and place specific knowledge. -Increases the natural wealth of the poorest, bringing about long term reductions in poverty. -Locally appropriate and accommodates a diverse range of values and epistemologies.	-Inequalities at the local level may be exacerbated. -Some communities do not have the internal capacity to manage their resources independently. -Difficult to impose local regulatory mechanisms on outsiders. -The rhetoric of community-based management can be used as an ideological tool to undermine the state, or to offload state responsibilities onto communities.

Multi-tiered Approach to Natural Resource Management

It is necessary to conclude this typology with a caveat that, despite being conceptually useful, this broad typology is not generally applicable or useful for making decisions regarding real-life complex governance structures. A number of authors argue instead that there is a pressing need to develop a new analytical model for understanding complex-multi-tiered governance structures that do not fit into this basic typology (Paavola, 2006; Ostrom et. al, 1999; Ostrom, 2005; Lemos & Agarwal, 2006).

Rather than examining “uni-planar” governance solutions independently, increasingly it is becoming important to understand the function of multi-tiered, complex governance structures operating simultaneously at the local, national, international and regional levels (Ostrom et. al, 1999). These new hybrid approaches to environmental governance combine the roles of markets, states and communities to create a range of innovative new approaches. These new mechanisms include public-private partnerships (state- market hybrid), private social partnerships (market community hybrid) and finally, co-management (hybrid of state and community management). The latter will be reviewed in more detail below.

Community-based Co-management of Natural Resources

Community-based co-management is an approach to natural resource management that shares power and responsibility amongst state and local resource users (Carlsson & Berkes, 2005). The general rationale for such an arrangement is that co-management governance systems can capitalize on the strengths and limit the weaknesses

of governance systems based upon centralized state control and local resource management functioning independently (Carlsson & Berkes, 2005). While mainstream literature on co-management does focus mainly on state-community partnerships, various other actors in addition to the state and local resource users may be involved in complex systems of co-management including decentralized government agencies, NGOs, commercial actors and other stakeholders (Carlsson & Berkes, 2005).

While there are a great diversity of governance systems that would fit this broad definition, typically (and for the purposes of this paper) co-management approaches include non traditional decision makers; encourage and support the participation of local communities in the management of their resources; distribute decision making power amongst various stakeholders; emphasize collaboration and negotiation amongst actors involved; respect and draw upon various knowledge systems (IUCN, 2002). Ideally, co-management is not a static formalized agreement but rather an ongoing problem-solving process that includes negotiation, information exchange and learning amongst actors involved (Carlsson & Berkes, 2004). The majority of research on co-management of natural resources has focused primarily on the objectives of promoting equality and social justice, sustainable use of natural resources, and finally strengthening community-based and community-run initiatives (IUCN, 2002).

Typology of Co-management Systems

Given the broad definition of co-management there are a range of partnership arrangements fitting into this category ranging from a simple exchange of information to

a formal partnership (Carlsson & Berkes 2004). Berkes and Carlsson provide a useful typology for thinking about the variances in the range of co-management systems.

At one extreme is what is called “co-management as an exchange system”, which conceptualizes two distinct spheres of governance at the local and state level which interact with each other for the purposes of exchange of information, good and services. Slightly more participatory in nature, is what Berkes and Carlsson call “co-management as joint organization” in which case there is some degree of joint management and decision-making taking place. In this case each level of governance maintains its authority and relative autonomy. “Co-management as a state nested system” according to these authors is the most prevalent form of co-management being practiced around the world. In this situation while the state maintains legal rights over natural resource management in a particular sector, management responsibilities may be transferred to private actors to manage certain components within the sector. Private actors may include local communities in this case. Alternatively and less commonly practiced is a system these authors call “co-management as a community nested system”. Under this system primary responsibility and decision making authority is in the hands of community members. It is important to note that in this case, the state may impose new restrictions or regulations over the management of natural resources, even those contained on private land.

Finally, recognizing complexities and the difficulty fitting real life co-management techniques into neat definitions offered above, Berkes and Carlsson offer a

fifth type of co-management practice called “co-management as a network”. This conceptualization recognizes the complexities and variances within state and local levels of governance. For example since neither the state nor local communities reflect coherent and unified bodies, the network approach accounts for the fact that the state consists of multiple authorities and agencies that may have a range of management relations with a range of actors at the local level. This network approach is intended to recognize that if the range of relationships between state and local actors must be considered in their totality in order to understand what makes up the national co-management system (Carlsson & Berkes, 2004).

Strengths of the Co-management Approach to the Governance of Common Resources

Proponents of the co-management approach to natural management argue that there are a number of strengths to this approach including: its capacity for constant adaptation; the flexibility to draw on management strengths at different levels of governance; increasing representation in decision making processes; while at the same time minimizing conflict resolution through power sharing (Carlsson & Berkes, 2004; IUCN, 2002). Ideally, co-management systems are not static formalized agreements but rather processes that include ongoing social learning, negotiations and adaptation of the system over time. Co-management processes and policies are constantly improved over time by incorporating a broad range of knowledge held by multiple social actors involved. For this reason, proponents suggest that compared to other forms of governance, co-management has a distinct capability to adapt to uncertainty and surprise

through a process of ongoing joint problem solving by multiple actors (Carlsson & Berkes, 2005).

The co-management approach is also unique in that it allows complex multi-level management problems to be solved at different levels. Proponents argue that it is highly unlikely that local users alone will be able to provide adequate management for natural resources. At the same time, state centered approaches are considered inappropriate, and often dependant on what is happening at the local level. Co-management is in theory, a way of drawing on the relative strengths and weaknesses of each approach while minimizing the risks by dividing up management responsibilities in accordance with relative strengths and weaknesses of those actors involved (Agarwal & Lemos, 2006). While co-management is built upon community capacities for natural resource management, it is argued that state involvement is essential in order to develop enabling policies and institutional linkages to strengthen and protect local initiatives (Korten, 1986). At the same time, co-management approaches are able to make use of local incentive structures, necessary to encourage willing and complementary conservation efforts among local resource users (Lemos & Agarwal, 2006).

At the same time as allowing for novel modes of distributing management responsibility, co-management also requires increased representation in decision-making processes. The rationale behind co-management regimes is that including the perspectives and interests of communities in decision making processes provides the management benefit of both time and space specific information that is critical to solving

real, complex environmental problems. At the same time as providing this benefit to the overall management system, the system by its very essence becomes more equitable and democratic. While the state continues to play an important role in the management process its role becomes less authoritative and linkages between social actors become more coherent (Lemos & Agarwal, 2006).

Finally, by providing a more democratic and representative management regime, co-management may reduce the risk of conflict over natural resources (IUCN, 2002). Co-management approaches have the potential to reduce the risk of conflict not only between communities and the state, but also between communities of local resources users (Carlsson & Berkes, 2005). By providing new linkages between social actors, co-management offers novel and improved conflict resolution methods in the form of negotiation, bargaining and participatory decision-making structures.

Weaknesses of the Co-management Approach to the Governance of Common Resources

Alternatively, critics as well as proponents of the co-management approach recognize that there are a number of theoretical weaknesses in the application of this management system. In a worse case scenario co-management systems may be implemented in a coercive way in which local participation is used to legitimize state action without any real power sharing taking place. Korten cautions that despite positive intentions, state based programs designed to promote community management may inadvertently contribute to the process of concentration and marginalization of

community interests (Korten, 1986). Likewise, Tsing argues that co-management initiatives run the real risk of undermining community autonomy and cosmologies by integrating communities into consensus based state led initiatives without any real redistribution of power (Tsing, 2005).

In order to be taken seriously by more powerful actors involved in co-management processes, Tsing argues that communities face a real risk of losing local priorities and local identity. Lemos and Agarwal concur that it is critical to recognize that in many cases environmental governance is firmly embedded in the neo liberal political economy, and that co-management rhetoric may be co-opted by powerful actors as a means for manufacturing consent, and quashing social movements and protests from below, while not posing any real challenge to the dominant power's interests (Lemos & Agarwal, 2006).

Lemos and Agarwal also caution that co-management efforts may result in the redistribution of responsibility for environmental management without sufficient redistribution of power and resources. The mere inclusion of more social actors in governance processes does not necessarily correlate with a more democratic system. While rhetoric and formal processes may provide the impression that power has been redistributed, there is a significant risk that those who are able to exercise more access and expertise in relation to the governance mechanisms being employed are likely to derive the greatest influence and therefore benefits resulting from them (Lemos & Agarwal, 2006).

Other critics of the co-management approach warn that under the rhetoric of participation, critical state responsibilities may be offloaded onto local communities that simply don't have the capacity to manage their resources independently. In the case that the state deems natural resource management a low priority, the rhetoric of co-management may be used as a means of justifying minimum common denominator goals, and minimum state responsibilities in the conservation efforts (IUCN, 2002). Even in the case of the best intentions, the state's capacity to create appropriate environmental policies may be undermined by the inclusion of multiple social actors in the environmental management system. Further, Lemos and Agarwal warn that co-management rhetoric may be used as a further justification for the neoliberal project of rolling back the state. As environmental decision-making and management power is transferred away from the state to both international and local actors, the policy-making capacity of the state may be critically undermined, and policy-making goals such as environmental conservation and redistribution efforts may become impossible (Lemos & Agarwal, 2006).

Assessing the Need for Co-Management and the Feasibility of the Process

While the co-management approach to natural resource management has both proponents and detractors, most would agree that the success or failure of this approach has much to do with its implementation as well as a number of pre-existing factors.

The state's participation in a co-management regime is particularly beneficial when: local actors have historically held customary and/or legal rights over the resources at stake; local interests continue to be significantly impacted by national natural resource management decisions; decisions tend to be controversial and different knowledge systems, values, and cosmologies need to be accommodated; the prior natural resource management system has failed to attain the interests or needs of one or more of the institutional actors; the relevant institutional actors are willing to collaborate and finally when there is adequate time and resources to design, facilitate and implement the process (IUCN, 2002). Alternatively, local communities' participation is especially appropriate and beneficial when: powerful new actors are encroaching and undermining traditional governance and use of natural resources; and when these customary practices are no longer able to manage local resources in a sustainable fashion (IUCN, 2002).

According to Berkes; "assuming that co-management is desirable and there is a need for it, and assuming that devolution of management power is possible and feasible, then four key conditions seem to define successful co-management: Are there appropriate institutions, both local and governmental? Is there trust between the actors? Is there legal protection of local rights? Are there incentives for local communities to conserve their resources?" (Berkes, 1997).

Chapter 2: Indigenous³ Communities, Traditional Knowledge of Agro-Biodiversity

Abstract: This chapter provides an overview of the relationship between indigenous communities, traditional knowledge and agro-biodiversity. In order to examine this relationship, traditional uses, conservation methods and community governance mechanisms will each be reviewed sequentially. To conclude this section the concept of bio-cultural heritage will be introduced to provide a broader and more holistic framework, with which to assess the impact of Peruvian national legislation on community governance of traditional knowledge and agro-biodiversity.

Global Importance of Agro-biodiversity and Traditional Knowledge

Prescribing appropriate policies and practices to halt the erosion of global biodiversity including agro-biodiversity is one of the greatest global challenges of our times. The genetic diversity that provides the raw materials for humanities' major food crops has been declining at an alarming pace, posing a major threat to current and future human food supplies. Maintaining agro-biodiversity both within and between crops⁴ is critical to

³ According to international criteria, four characteristics distinguish indigenous peoples from others. They are descendants of groups inhabiting an area prior to the arrival of other populations: they are politically not dominant; they are culturally different from the dominant population; and they identify themselves as indigenous" (Berkes, 2001,115). However, according to Soren Hvalkoff, the indigenous peoples of the Andean highlands refer to themselves as peasants or *campesinos*, not indigenous. While referring to themselves as *campesinos* or peasants, they often refer to indigenous peoples of the lowlands as "indigenous" and generally perceive them as inferior (Hvalkoff, 2002). So while the term "indigenous" is not an unproblematic term to use, it will be used for the purposes of this paper in order to maintain consistent language with the national and international legislation being considered as well as the language contained in literature surveyed.

⁴ Inter-specific agro-biodiversity refers to genetic diversity between different crop species. Intra-specific agro-biodiversity refers to genetic diversity within a particular crop species. This paper will consider both forms of diversity when using the general term "agro-biodiversity".

ensuring global food security. While the impacts of biodiversity erosion are already significant, they are likely to become more critical in the face of a changing climate.

It is not often recognized that peasant farmers and indigenous communities in developing countries are responsible for cultivating the majority of the world's agrobiodiversity. Farmers continually manage the diversity of their fields by identifying desirable crop traits, and encouraging their prevalence and adaptation through selective breeding, seed selection and manipulation of growing conditions (Wilkes, 1992 cited from Isakson, 2007). In contrast "modern" agricultural practices tend to put a negative selection pressure on diversity, as markets are highly dependent on varietal uniformity of only a select number of crops for the purposes of profit maximization (Perales, 1998, cited from Isakson, 2007). Uniform crops are significantly more vulnerable to epidemics and large-scale crop failure; as a result plant breeders must produce new resistant varieties every few years. This process of seed regeneration is at least partially dependent on traditional agricultural practices and the diversity of agrobiodiversity at the local level to provide the raw inputs for commercial seed development (Wilkes, 1992 as cited in Isakson, 2007). Thus, agrobiodiversity managed by local and indigenous communities is not only important for the maintenance of traditional lifestyles, but also provide the backbone for the entire global food supply.

Only over the past couple of decades has the importance of biodiversity been recognized by the international scientific and policy-making community. The major

reaction has been to develop *exsitu* gene banks around the world for the conservation of those crops that are deemed to be of value to the global food supply (Bellon, 1996). Much more recently and to a lesser extent, researchers have begun to recognize the importance of *insitu* conservation, or the conservation of agro-biodiversity within the farming systems where they evolved (Brush 1992). In contrast to conservation in gene banks, the purpose of *insitu* conservation is to maintain farmers' traditional knowledge, practices and evolutionary processes that have created, adapted and continue to maintain diverse agro-ecosystems (Bellon, 1996). Three major justifications are made for the importance of *insitu* conservation efforts. First that on-site conservation is dynamic, resulting in an ongoing co-evolutionary process that cannot be replicated in a gene bank. Secondly, that *insitu* conservation is necessary to protect against the fact that *ex-situ* gene banks are subject to human error and reliance on a source of adequate funding. Finally, *insitu* conservation efforts have the distinct advantage that this approach does not separate crops and seeds from the invaluable traditional knowledge of those who cultivate them (Isakson, 2007).

Like biological diversity, traditional knowledge systems are invaluable repositories of information acquired through cultural evolution processes (Brush, 1996). All cultures possess systematic knowledge of the plants, animals and natural phenomena in their direct surroundings (Brush, 1996). Unlike traditional knowledge regarding undomesticated biodiversity, in the case of agro-biodiversity the relationship is so intertwined it becomes impossible to separate the two. The traditional knowledge system is so critical to the conservation of agro-biodiversity, that if traditional knowledge about

agro-biodiversity is lost, the genetic material will inevitably be lost as well (Argumedo, n.d.-a). Local knowledge systems are especially elaborate in those areas containing vast amounts of crop biodiversity (Brush, 1996). For example, Quechua farmers in Peru have a distinct knowledge system shaping their relationship with agro-biodiversity. For the purposes of this paper, biological diversity and traditional knowledge will be considered to be integrally related resources.

Indigenous Communities, Traditional Knowledge and Agro-biodiversity

The purpose of this chapter is to provide an overview of the relationship between indigenous communities, traditional knowledge and agro-biodiversity. In order to examine this relationship, traditional uses, conservation methods, and community governance mechanisms of indigenous communities will be reviewed sequentially. To conclude this section the concept of bio-cultural heritage will be introduced to provide a broader and more holistic framework, with which to assess the impact of Peruvian legislation on community governance of agro-biodiversity. However, before proceeding with the literature review as outlined above, it is necessary to provide a few caveats regarding the risk of generalizations, and reliance on secondary sources to convey the views and practices of indigenous communities.

Generalizations are always problematic, including the tendency of scholars to oversimplify and speak of a unified “we” when discussing ideological positions, values and cosmologies of cultural groups. Recognizing that the people within each cultural

group are complicated, diverse individuals, it should also be assumed that each cultural group is made up of a diverse range of perceptions, values and attitudes towards environmental conservation (Berkes, 2001). Recognizing that generalizations are risky, and should be approached with caution and sensitivity, they are also sometimes useful and necessary tools for conceptualizing and analyzing complex issues.

While this section of the literature review draws upon some good quality participatory research projects involving indigenous communities, as well as some detailed anthropological studies, it is important to recognize that the intent is not to speak on behalf of indigenous communities. Nor is it meant to speak in absolute terms about the traditional beliefs, worldviews, and practices of indigenous communities, but rather to provide some useful background information and context to begin thinking critically about the impact of Peruvian ABS legislation on indigenous communities' governance of traditional knowledge and agro-biodiversity. While this literature review will draw upon similarities of Quechua indigenous peoples living across the Andes region, as well as some useful analyses of governance mechanisms of indigenous communities around the world, whenever possible this section will attempt draw on research and findings from the Sacred Valley region in Peru where the Potato Park is located.

About the Region

In addition to being one of the most biologically diverse countries in the world, Peru is home to one of the largest populations of indigenous peoples in the world. The majority of Peru's indigenous peoples live in the central and southern Andean regions of

the country. It is estimated that indigenous peoples make up approximately 43 percent of Peru's population (Argumedo, n.d.-a). There are two distinct groups of indigenous peoples in Peru, those from the Amazon and a much larger group from the Andes (ibid). This paper will largely be drawing on interviews and case studies involving latter.

For centuries Indigenous communities in the Andes region, have used their traditional knowledge of biodiversity, and unique ecosystem, to cultivate an extraordinary diversity of crops. Indigenous farmers in this region have shown astonishing capacity for agricultural innovation resulting both in the creation of unique food crops as well as complex and effective conservation techniques (Argumedo, n.d.-a). More than 10 million small-scale farmers of the central Andes of Peru, Ecuador and Bolivia cultivate an enormous diversity of crops. It is estimated that up to 40 crops species were domesticated in this region prior to the Spanish conquest in the 1500s (Zimmerer, 1996). If one considers the diverse varieties of these major Andean crop species, the numbers are even more impressive. It is estimated that as many as 5 thousand landraces of potatoes and six thousand varieties of maize, continue to be grown by small farmers in the region. Many lesser-known varieties of indigenous crops contribute to this diversity. These include such crops as Olluco (*Ollucus tuberosus*), Oca (*Oxalis tuberosa*), Mashua (*Tropucolum aestium*), Tarwi (*Lupinus mutabilis*), Kiwicha (*Amarantus caudatus*), and Quinoa (*Chenopodium quinoa*), as well as many other native horticultural species and medicinal plants (Argumedo, n.d.- a).

The Sacred Valley region is considered a micro-centre of origin for potatoes as well as other important Andean crops (Argumedo, n.d.- a). While approximately 1,300 different varieties are found in the wider Andean region, this area alone is home to approximately 400 wild and cultivated potato varieties (ibid). Approximately 4 million indigenous people live in this area the great majority of whom are small-scale subsistence farmers. These farmers for the most part farm by hand, or in some cases with oxen (Theile, 1999). Most communities in this area maintain strong Quechua cultural traditions. The majority continue to speak Quechua and maintain many pre-Hispanic cultural traditions, many making their living from traditional farming which to this day remains relatively isolated from the global market economy (Argumedo, n.d-a).

Indigenous Communities and the Use of Traditional Knowledge and Agro-Biodiversity

The anthropological literature and case studies reviewed for this section demonstrate that agro-biodiversity and related knowledge continue to play two critical functions for indigenous communities. First these resources are central to community efforts to maintain food security and nutritional needs. At the same time, biodiversity maintenance is an essential element of the local peasant economy in the region.

Growing a range of diverse crops provides an essential buffer against widespread crop failure and field losses, due to pests, disease, shortage of rainfall, frost and other unforeseen environmental conditions that may differentially impact different crop varieties (Zimmerer, 1996). As small farmers are faced with many production risks, the

maintenance of crop diversity has been employed as a technique for managing these risks (Bellon, 1996). Economics literature on crop diversity has established that the planting of crops with variances, minimize farmer risks while maximizing average returns (Bellon, 1996). In the absence of pesticides, crop diversity plays an important role in reducing the negative impacts of pests and pathogens, as crops are differentially impacted and some have developed resistance over a long period of co-evolution (Bellon, 1996).

Crop diversity and traditional knowledge also provide Quechua subsistence farmers with essential nourishment needed for daily survival. For example, the consumption of a diverse range of tubers and including potatoes, as well as a variety of diverse grains has been the lifeblood of many of these communities. Not only do diverse varieties provide essential nutrients, but they also add much needed variety to an otherwise monotonous diet, providing different flavours and uses in traditional recipes (Bellon, 1996).

Extraordinary agro-biodiversity, has also allowed these communities to fine-tune crops to adapt to different microenvironments or agricultural niches (Zimmerer, 1996). Different elevation gradients, a defining characteristic of the landscape of this region, result in a variety of microclimates that provide appropriate conditions for unique plant communities to flourish. Diverse potato varieties found in the region, are especially known for their ability to adapt and vary in accordance with a multitude of ecological conditions (Zimmerer, 1996). Each landrace has a different affinity for adaptation and success in different growing conditions and tend to be particularly responsive to different

soil types (Harlan as cited in Zimmerer, 1996). This unique landscape not only enables the cultivation of numerous varieties, but this ability to adapt has been a critical survival mechanism for communities in these regions over many generations.

In addition to providing a broad range of environmental protections, agrobiodiversity and traditional knowledge also provide the backbone of the Andean economy, both informal and formal. Through intricate trading patterns (mainly barter markets which exist to this day) indigenous communities from various regions and different ecological growing capacities are able to supply one another with diverse crops, satisfying gaps in the nutritional basis of individual communities (Theile, 1999). Barter markets in this region are vital to ensuring that individual communities have a diverse range of food to ensure a balanced diet. For example, long established trading patterns dictate that the middle and high agricultural zones will supply starches mainly in the form of potatoes and corn, for the rainforest zones, while the rainforest will reciprocate providing much needed supplies of vitamin C and potassium through fruits such as citrus and bananas (Argumedo, n.d.- a).

In addition to the exchange of food through the barter system, there is also a highly complex and effective informal seed exchange system operating throughout the country (Theile, 1999). Recognizing that seeds from higher areas tend to be of higher quality (where degeneration of seed is lower) seed tends to originate from communities at the highest altitudes specializing in seed maintenance. Most exchange takes place through personal exchange relationships between individuals, neighbours, relatives and nearby

communities (Thiele, 1999). The seed is then multiplied and redistributed at an intermediate level and further distributed to farmers at a lower level and so on (Thiele, 1999). Many indigenous farmers rely heavily on agro-biodiversity and traditional knowledge not only for meaningful participation in peasant economy but also in some cases for participation in specialized global markets (Zimmerer, 1996).

Text Box One: Market Access and Biodiversity Loss

Market Access and Biodiversity Loss

Most theoretical and empirical studies of have shown a positive correlation between market access of previously isolated smallholder farmers and biodiversity loss (Isakson, 2007). The logic predicts that as previously isolated farmers gain greater access to markets for their crops, market forces will provide incentives for farmers to reduce their production of native varieties, shifting production instead to “improved varieties” (Isakson, 2007). This theoretical hypothesis however, is increasingly being called into question, as a number of more recent studies have found that market isolation may encourage crop diversity in some instances, and discourage it in others (Isakson, 2007). While the relationship between farmers’ market access and biodiversity conservation continues to be debated, it is notable that much of this research fails to disaggregate the impacts of farmers’ participation in different forms of markets such as small-scale non-agricultural markets which some studies have found are playing an increasingly important role in income generation amongst small-scale farmers (Reardon and German Escobar, 2001; Bebbington 1999; Deere, 2004 as cited in Isakson, 2007).

Cultural and Spiritual Significance of Agro-Biodiversity

In addition to contributing to the nutritional health and economic livelihoods of Peruvian peasant farmers, agro-biodiversity is also of great cultural and spiritual significance to many of the country’s indigenous communities. Indigenous communities tend to place a high emotional and spiritual value on their relationship with diverse traditional crops. Indicating this tendency, anthropologists have noted that indigenous groups often relate to their animals and plants as if they were persons (Gudeman, 1986). For example Zimmerer’s anthropological research in the Paucartambo Andes described

the way that indigenous discourse on seed anatomy and disease relies heavily on references to the human body (Zimmerer, 1996). Also indicating the degree of cultural importance placed on individual crop species, Zimmerer notes that there is no such thing as a generic word for “crop” in the Quechua language (Zimmerer, 1996). Instead each crop is named independently with great deliberation (Zimmerer, 1996).

The Quechua discussed their farming with language drawn from an immense agricultural vocabulary and a rich array of metaphorical and other figurative expressions. The cultivator’s artful use of farm language created the expressive verbal medium for knowing diverse food crops. Less intimate or less plentiful linguistic devices would not have so fully accommodated the specialized farm knowledge of the Quechua people. It is estimated that one out of every three or four Quechua words related to agro-biodiversity lacks an equivalent translation in English or Spanish (Zimmerer, 1996, 194).

Quechua beliefs about proper livelihoods and cuisine indicate a strong cultural preference for diverse traditional crops. Consumption patterns and preferences are amongst the most important factors driving the continued use and thus, preservation of diverse crops (Zimmerer, 1996). Quechua farmers traditionally, produce much of their own food, and thus their growing patterns correspond with their culinary tastes and preferences (Zimmerer, 1996). A concept known as *kawsay* is used to express and encourage adherence and continuation of traditional community culinary norms. Given the correspondence between growing patterns and culinary norms, *kawsay* also serves secondarily as a resource ethic (Zimmerer, 1996).

Beyond its deep cultural importance, valuation of agro-biodiversity is also intricately interwoven into Quechua spiritual and religious beliefs and practices.

Traditional religious and spiritual beliefs of the Quechua place great importance on the connection of humans with nature, including sacred crops. Through the use of emotionally powerful cultural symbols, indigenous communities maintain a sense of sacredness and respect for their diverse resources (Berkes, 2001). Religious customs and ceremonies of the Quechua in the Andes make use of specific crop types in rituals and other religious practices (Zimmerer, 1996). Because of the spiritual significance of certain diverse crops, Quechua farmers are required to handle crops in accordance with cultural and moral guidelines set out by their communities (Zimmerer, 1996). Zimmerer reports that certain traditional crops are known to evoke a sense of connection with community ancestors who were also responsible for adapting and maintaining these crops. The cultural practice of developing and preserving Sacred Groves provides further indication of the sacredness of bio-diverse resources (Argumedo, no date a, 6).

Indigenous Communities and the Conservation of Biodiversity and Traditional Knowledge

A common perception is that a spirit of stewardship and conservation is entrenched in the culture of the Andes. While indigenous communities living in the Andes have been successful in the development and maintenance of diverse crops, authors such as Berkes caution against fixing to extreme views and over-generalized assumptions about indigenous communities and their relationship with the natural environment. Caution is particularly necessary to avoid stereotypical depictions of indigenous communities as peoples who live in complete harmony with their surroundings (Berkes, 2001). At another dangerous extreme is the view that indigenous

peoples are incapable and unwilling to manage their natural environments (Berkes, 2001). Instead, offers Berkes, it is important to view traditional conservation approaches as a set of adaptive responses resulting from multiple causes and conditions over time (Berkes, 2001). Indigenous peoples just like all other societies, acquire knowledge about how the world behaves, and apply this knowledge to guide their everyday life. Because indigenous people have been extremely reliant on the natural resources in their immediate vicinity for their survival, there has been a constant and strong incentive to develop practices to maintain and conserve these resources.

This tendency is especially true, when it comes to the preservation of local biodiversity. For centuries, many of these communities have felt strong incentives to maintain these resources, and as a result of their value in everyday life, complex and efficient conservation techniques have been developed and practiced (Berkes, 2001). According to Berkes, the main reason that biodiversity has been conserved at all over the centuries, is because of traditional systems of governance (Berkes, 2001). In the Paucartambo Andes, as well as other central Andean traditional governance mechanisms for the conservation of biodiversity date back to as many as 7000 years ago and have evolved alongside the agro-biodiversity that is being grown today (Zimmerer, 1996).

Indigenous Communities and the Traditional Governance of Biodiversity and Traditional Knowledge

Generally speaking, Andean customary governance mechanisms provide the basis for many patterns of conduct by which community members adhere (IIED, n.d.- b).

More specifically, community customary governance mechanisms⁵ govern the way that agro-biodiversity and its associated knowledge are acquired, shared, conserved, and used. Customary laws vary across place and time, and adapt in response to the conditions and needs of individual communities (IIED, n.d.-b). While some customary laws are codified, or incorporated into local legislation, for the most part these rules and norms are orally held and transmitted from generation to generation (ibid). While there is variance amongst and between individual communities, some similarities can be found within the customary laws of most Andean Quechua communities.

Almost all Quechua communities share the guiding principles of *reciprocity, duality, and equilibrium* (IIED, n.d-b). Reciprocity is the belief that what has been received must be given back in equal measure. The principle of duality holds that everything has an opposite, which complements it. This translates into a variety of ethical beliefs including that human behaviour should not be individualistic (ibid). Finally, the principle of equilibrium refers to balance and harmony in all aspects of life including interactions with the natural environment. Customary laws relating to the management of biodiversity are largely derived from the above-mentioned principles.

Many indigenous communities, and NGOs have pointed out the failure of many existing international and national policy and legislation to consider indigenous customary laws in the formulation of formal laws and to integrate indigenous governance mechanisms into the larger system of governance (Argumedo, n.d.- b).

⁵ Customary governance refers to “*locally recognized principles or systems applied to internally govern or guide aspects of the lives and activities of indigenous and local communities, which are orally held and transmitted and applied to community institutions, and which include specific norms or rules for the management of particular resources or conflicts*” (iied et. al, n.d.-a, 4).

Collective Bio-Cultural Heritage of Indigenous Communities

The purpose of this chapter was to understand the relationship between indigenous communities and agro-biodiversity and related traditional knowledge and to provide an introduction to the traditional governance of these resources. Recognizing the interconnection of these resources with the physical survival, as well as with the cultural and religious views of Andean indigenous communities, it is argued by some that any effort to protect the agro-biodiversity and traditional knowledge of indigenous communities must be done in a holistic manner founded on an understanding and respect for the distinct cultural, biological, and ecological nature of indigenous communities (IIED, n.d.-a).

The International Institute for Environment and Development (IIED), together with a number of indigenous groups including Association ANDES have developed the concept of Collective Bio-Cultural Heritage as a holistic framework within which a community's knowledge and resources are embedded. As defined by the workshop;

Collective Bio-cultural Heritage (is a concept that refers to the) knowledge, innovations and practices of indigenous peoples and local communities which are often held collectively and inextricably linked to traditional resources and territories; including the diversity of genes, varieties, species and ecosystems; cultural and spiritual values; and customary laws shaped within the socio-ecological context of communities (IIED, n.d.-a, 4) .

According to the participant organizations in this study, the components of Collective Bio-cultural Heritage including agro-biodiversity are inextricably linked, and

therefore the conservation of one component can only be maintained as a part of this holistic system including the indigenous cosmo-vision or holistic worldview (IIED, n.d.-a). In other words, maintenance of traditional agro-biodiversity requires a holistic conservation approach simultaneously addressing the conservation of cultural, spiritual, biological, and landscapes of indigenous communities (IIED, n.d.-a).

Chapter 3- Exploring the Compatibility of Peruvian ABS

Legislation and Community *sui generis* Governance of Agrobiodiversity and Traditional Knowledge

Abstract: This chapter introduces the origin of the International Debate on Access and Benefit Sharing. An overview of the Convention on Biological Diversity is then presented, as well as an introduction to the Peruvian Law for the Protection of Traditional Knowledge which was highly influenced by Peru's signing of the Convention. These international and national regimes for Access and Benefit Sharing are then contrasted with traditional governance mechanisms of Andean communities, drawing on the example of the communities of the ANDES Potato Park.

Origins of the International Debate on Access and Benefit Sharing

For hundreds of years, traditional knowledge and genetic resources were considered the common heritage of humankind, freely transferable across borders without consent from the country of origin and without any obligation to share the benefits resulting from their use. Developing countries have always been and are still the source of the majority of the world's valuable traditional knowledge and biodiversity (Brush, 1992). The areas of origin of almost all modern crop varieties are for the most part located in the least developed countries, and based upon the traditional knowledge of the traditional farming communities that exist in these localities (Brush, 1992). For example the historical centre of origin for wheat is in Turkey, Iraq and Syria, for rice is India, China, Thailand and the Philippines, for maize Mexico and Guatemala, and finally for

potatoes the Peruvian slopes of the Andes (Vavilov, 1992). The commercial development of these modern crops has been dependent on the uncompensated collection of crop genetic specimens from these and other centers of origin, which are then used in formal crop breeding programs.

Over centuries the farmers of least developed countries have been primarily responsible for the adaptation and maintenance of the local varieties upon which the global food system is based (Brush, 1992). Because biodiversity is primarily concentrated in areas populated by indigenous and local communities (Ruiz et al, 2004), these communities are vital to the study, use and preservation of biological diversity and traditional knowledge. At the same time the culture, livelihoods and well being of these communities are also intrinsically linked to these resources (ibid). While the genetic resources and traditional knowledge of developing countries have been dispersed freely around the world for centuries, the issue has become increasingly controversial over the last several decades. These least developed countries are increasingly seeking greater control and respect for farmers' rights over their crop genetic resources in response to recent international developments including the granting of intellectual property rights, the rise in prominence of the biotechnology industry, and finally because of the perceived erosion of genetic diversity in these regions (Brush, 1992).

Sentiments on the sharing of genetic resources have become increasingly divided along the lines of developed and developing countries, as plant breeders in developed countries have been granted intellectual property rights over improved varieties of plants.

At this point it is mainly developed countries that recognize and enforce plant breeders' rights; however the international community is now trying to extend these provisions to developing countries (Brush, 1992). Under these intellectual property regimes biological resources can be considered private intellectual property through the granting of patents. This creates the ironic situation, where farmers in the poorest countries where the vast majority of valuable genetic materials originate, end up paying plant breeders in developed countries for the use of genetic materials that were developed from the uncompensated use of local varieties (Brush, 1992). As developed countries continue to recognize the enormous economic potential of the biotech industry, the push towards enforcing plant breeder's rights and intellectual property rights over genetic materials has gathered steam. At the same time developed countries continue to demonstrate a renewed and heightened interest in ensuring continued access to genetic resources and traditional knowledge of the South, as these resources provide essential inputs for technology development.

Developing countries, have for the most part opposed the granting of plant breeders rights, instead lobbying for farmer's rights based upon the arguments that either all germplasm should be considered the common heritage of humankind, or that traditional plant cultivators in developing countries should share in the benefits gained from using their genetic resources (Brush, 1992). Also, as the Northern demand for genetic resources and traditional knowledge increased, biopiracy⁶ became a more significant threat. Addressing these concerns, the Convention on Biological Diversity

⁶ Biopiracy is commonly referred to as the appropriation of the knowledge or genetic resources of indigenous or local communities by external actors seeking exclusive monopoly control over these resources usually in the form of patents or plant breeders' rights (ETC Group, 2008).

(CBD) became the first International Agreement regulating the access and benefit sharing of traditional knowledge and genetic resources.

International Access and Benefit Sharing Legislation: Convention on Biological Diversity

The Convention on Biological Diversity was adopted at the Earth Summit in 1992. The stated objective of the convention is to promote the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources (CBD, 1992). The signing of the CBD was monumental in that it reversed hundreds of years of free and unregulated access to traditional knowledge and genetic resources. The Convention declared that the nation state was the legal owner of all genetic resources contained within its boundaries. The state would thus have sovereign authority to regulate access and benefit sharing of genetic resources (CBD, 1992).

The logic behind the Convention was that sharing financial benefits with countries that provide genetic resources would offer these countries an economic incentive to conserve these resources for the benefit of (hu)mankind. The Convention was meant to address the tension between developed and developing countries by strengthening the South's efforts to conserve the majority of the world's biodiversity (contained within their borders), and to have Northern countries share in the costs and benefits resulting from these conservation efforts (Zedan, 2005).

The Convention contained a special provision related to the protection and conservation of traditional knowledge. Article 8j of the convention requires that signatory countries (CBD, 1992):

- Respect, preserve and maintain the knowledge, innovation and practices of indigenous and local communities related to the conservation and sustainable use of biodiversity;
- Promote the wider application of Traditional Knowledge with the approval and involvement of the holders of such knowledge; and
- Encourage the equitable sharing of benefits derived from the use of such knowledge, innovations and practices.

While the Convention does establish principles of respect and equity with regards to the traditional knowledge of indigenous peoples, it falls short of creating a property right for indigenous peoples over their knowledge (Tobin & Swiderska, 2001). Further, the Convention is unclear as to how this will affect the rights, practices and the ability of communities to govern genetic resources. There is no doubt that the CBD will have profound implications (both intended and unintended) and offers tremendous opportunities and risks for nations, communities and individuals. However, many of these outcomes and impacts will be unpredictable, highly debated amongst stakeholders, and dependant on how these international guidelines are transferred into national legislation.

Peruvian ABS Legislation: The Law for the Protection of Collective Knowledge of Indigenous Peoples

Peru is considered to be a mega diverse country due to its extremely high level of biodiversity. It is estimated that Peru is home to over 4,000 medicinal plants and 130 native crop species (Ruiz et al, 2004). In addition to its tremendous biodiversity, there are 44 cultural and ethnic indigenous groups located for the most part in the Andean and Amazonian regions of the country (ibid). Many of these ethnic and cultural groups have been recognized for their use of traditional knowledge in cultivating and conserving a wide variety of crops.

A signatory to the CBD, in 2002 Peru formally introduced law 27811 for the “Protection of the Collective Knowledge of Indigenous Peoples”⁷. This national *sui generis*⁸ legislation is the first legal regime in the world intended specifically to protect the traditional knowledge of indigenous peoples (Ruiz et al, 2004). The law defines traditional knowledge as “the accumulated, transgenerational knowledge evolved by indigenous peoples and communities concerning the properties, uses and characteristics of biological diversity” (Law 27811, 2002, article 2).

The declared objectives of this law are to: protect, preserve and develop collective knowledge; to ensure fair and equitable distribution of benefits derived from the use of collective knowledge; to use collective knowledge to benefit indigenous peoples and humankind; to assure that any use of collective knowledge requires the prior informed

⁷ A copy of the Law 27811 is contained in the appendix of this paper.

⁸ Legislation that is “of one’s own kind”, that is not derived from or based on any existing legislation such as national or international ABS legislation or intellectual property rights.

consent of indigenous peoples; to promote indigenous capacity to distribute collectively generated benefits; and finally to prevent patents on inventions based on the collective knowledge of indigenous peoples without proper consent (Law 27811, 2002).

In order to meet these broad objectives the following principles were established. Prior informed consent is required from the relevant community or peoples before collective traditional knowledge can be used for scientific, industrial or commercial purposes. The law stipulates that present generations of indigenous communities are responsible for preserving, developing and administering collective traditional knowledge for their own benefit and that of future generations. Finally protection under the law applies only to traditional knowledge belonging collectively to one or more indigenous peoples, but not that belonging to individual members. Collective traditional knowledge is regarded as part of the cultural heritage of the indigenous peoples (WIPO, 2000).

An indigenous community in possession of collective traditional knowledge is legally protected against any unauthorized or unfair disclosure, acquisition or use of that knowledge, insofar as such traditional knowledge is not in the public domain. This protection extends to third parties having obtained the information under obligation of confidentiality (WIPO, 2000). In the case that community's rights to traditional knowledge are infringed; the law permits Indigenous communities to take legal action where the burden of proof will be placed on the defendant (WIPO, 2000).

Several mechanisms for protecting indigenous rights to traditional knowledge are utilized in the law. It is proposed that a national system of registers should be established offering varying levels of confidentiality (Ruiz et al, 2004). These registers are intended to provide both defensive protection against outside patents aiding in prior art search requests, while at the same time offering positive protection facilitating the maintenance and transmission of indigenous peoples' knowledge. The law therefore proposes three different types of registers: a Public National Register; a Confidential National Register; and Local Registers. The former would be implemented by INDECOPI⁹ and would inform patent granting decision-making. The Private National Register would be used for the same purpose but would provide indigenous communities with the ability to choose to keep some information strictly confidential and inaccessible by third parties. Finally, local registers are proposed as local initiatives to document and maintain control of collective knowledge of each community (Ruiz et al, 2004).

Licensing contracts are also relied on heavily in this national effort to protect traditional knowledge. Specifically, they are promoted in the legislation as an effective mechanism for ensuring that fees and royalties are paid to indigenous communities for the use of their collective traditional knowledge (WIPO, 2000). The law sets out a framework of rules and regulations for negotiations with indigenous communities, when third parties are seeking access to traditional knowledge and genetic resources. Applications for licences would be overseen by INDECOPI and would be mandatory and subject to minimum requirements. Communities would be free to enter into an agreement individually for knowledge that is shared with other communities, but their

⁹ INDECOPI is the Peruvian National Institute for the Defense of Competition and Intellectual Property

agreement would not preclude other communities possessing the same resources from entering into a similar agreement (Ruiz et al, 2004).

Licensing contracts would require the prior informed consent of indigenous peoples. The law has established that prior informed consent for the access and use of traditional knowledge by a third party will not be granted by communities themselves, but by representative organizations of indigenous peoples. The rationale is that since many communities share common knowledge and genetic resources and may have divergent views regarding outsider use of these resources. Therefore representative organizations are relied upon in order to make decisions on behalf of communities and to reduce conflict over shared resources (Ruiz et al, 2004).

Finally, the Law establishes a Fund for the Development of Indigenous Peoples. The Fund would receive payments from the state, international bio-prospecting agreements, and a percentage of the profits obtained from inventions and technologies based on community traditional knowledge. The money would be used toward the overall development of indigenous peoples by financing projects and activities (WIPO, 2000).

Customary Governance¹⁰ Mechanisms in Peru

It is important to understand not only how national ABS legislation protects traditional knowledge but also to reflect upon how this legislation will impact customary practices and the customary laws of traditional communities. In order to address this concern a small number of traditional communities have begun to formalize local *sui generis* governance mechanisms. Advocates of this approach argue that *sui generis* systems should not be based on formal or Western intellectual property models focused on protecting individual rights, and commercial incentives, but instead they should reflect the knowledge systems, innovative processes, customary governance mechanisms of traditional communities themselves (Swiderska, 2006).

Swiderska argues that communities must protect their rights to their knowledge at the local level. From this perspective it is through strong local governance mechanisms that communities will remain in control of their natural resources, maintain their biodiversity and traditional knowledge and at the same time improve their livelihoods (Swiderska, 2006). However useful this may be, Tobin points out that in cases where customary law and domestic laws conflict, it is most often the formal national law that dictates policy and practice (Tobin, n.d.-a). He proposes that the interface between community governance mechanisms and national policies must be examined in order to understand how both of these governance mechanisms may simultaneously support protection of traditional knowledge within the larger framework of community

¹⁰ Customary governance refers to the traditional mechanisms for making community decisions. Such mechanisms are based on indigenous cultural and spiritual beliefs, have evolved over centuries and are passed down from generation to generation. Customary governance mechanisms are used to make decisions at the community level regarding the preservation, use, exchange and innovation of genetic resources and traditional knowledge.

biocultural heritage¹¹. In other words, how can customary laws be used to shape the development and implementation of National ABS legislation?

ANDES NGO and the Potato Park

The Potato Park, located outside of Cusco, Peru reflects a *sui generis* regime as described above. The Potato Park is an agricultural collective that was developed in 2002 under the coordination of ANDES NGO. ANDES is a locally based NGO that facilitates the efforts of indigenous communities to develop innovative landscape-based conservation models, based on traditional management practices and indigenous knowledge, and to formalize these methods through *sui generis* legislation.

The Potato Park brings together six Quechua settlements for the purpose of establishing a preserve where Quechua crops coveted by outsiders could be protected from threats of biopiracy, conserved, exchanged and developed according to customary law. The Park's Council has regulatory control over the genetic diversity in the park, and are in the process of developing *sui generis* governance mechanisms based on customary law to govern the conservation of Andean biodiversity and ecosystems and Quechua culture, including the access and benefit sharing of genetic resources and traditional knowledge (Koerner, 2007).

¹¹ As discussed in the previous chapter, Biocultural Heritage is defined as “ knowledge, innovations, and practices of indigenous peoples and local communities which are collectively held and inextricably linked to traditional resources and territories; including the variety of genes, varieties, species and ecosystems; cultural and spiritual values; and customary laws shaped within the socio-ecological context of communities” (Swiderska, 2006).

For centuries the communities of the Potato Park, as well as many other indigenous communities, have been adapting to new challenges and opportunities to maintain the biocultural heritage of the region. Quechua values provide the framework for the Park's approach to protecting the communities' biocultural heritage. Three values in particular are guiding the development and implementation of the local governance mechanism: these are the same Quechua values reviewed in the previous section of the literature review: reciprocity¹², equilibrium¹³, and duality¹⁴ (Argumedo, n.d.).

A number of activities have taken place to date to develop and implement a *sui generis* regime reflecting current conditions, and drawing on the principles of traditional customary law within the Potato Park. These include the signing of a historic agreement with the International Potato Centre (CIP) for the repatriation of native crops; the ongoing development of an inter-community agreement for equitable benefit sharing; and finally the development of a community register to provide both positive and defensive protection for community resources. The *sui generis* system aims to be holistic in its approach, in that it seeks to protect the biocultural heritage of the communities, including not only biodiversity and traditional knowledge, but also the right to continued community management.

¹² Reciprocity: what is received must be given back in equal measure. It encompasses the principle of equity, and provides the basis for negotiation and exchange between humans, and with Mother Earth.

¹³ Duality: everything has an opposite which complements it; behaviour cannot be individualistic, for example, in the union between man and woman; and that other systems or paradigms can be used.

¹⁴ Equilibrium: refers to balance and harmony, in both nature and society- (e.g. respect for the nature and mountain gods; resolving conflicts to restore social harmony; and complementarity e.g. between ecological niches).

Argumedo describes the customary legal system operating in the communities of the Potato Park focusing on the principles governing property law, community decision making structures, traditional mechanisms governing access to community resources and finally traditional mechanisms regulating benefit sharing (Argumedo, n.d.-a). Property within the communities of the Potato Park is owned and managed collectively (ibid). Land, can be owned collectively by the entire community, or for a set amount of time within a particular family. Property rights are designed so that the entire community owns, conserves, uses and benefits from community land, and entire families own, conserve, use and benefit from land held collectively by families (ibid). The landscape of the Potato Park, is a collective entity, including its biogenetic diversity, ecosystem goods, cultural and spiritual values, knowledge, practices and innovations that determine which crops are cultivated and how they are managed are all held collectively as well.

Decision-making in the communities of the Potato Park is carried out in a collective fashion by “varyocs¹⁵” (ibid). The cultural values that support the political and social functions of the Potato Park emphasize the importance of including all community members in decision-making processes. Through collective decision-making structures, and the continued reverence for traditional institutions and authorities, cultural values continue to dictate how knowledge, land and genetic resources are managed.

Access to biological resources and traditional knowledge is open, and governed by customary laws related to resource conservation and use. As a result, all aspects of communities’ bio-cultural heritage, whether biological or spiritual, are openly available

¹⁵ Quechua traditional authorities

to be shared, used and appreciated by all of humanity. In the communities of the Potato Park this often occurs through the sharing of resources and knowledge amongst kinship networks. While access is generally open, there are some restrictions imposed by customary laws that require recipients to ensure that access will remain open and to use those resources in a way that respects the biological and cultural integrity of the community of origin. The Andean principal of reciprocity guides the formation of reciprocal relations between resource provider and resource user.

Finally, benefit sharing is also conditioned by community customary principles of resource conservation and use. Within the Potato Park, all community members benefit from daily use of traditional resources including biodiversity, cultural and spiritual values, customary laws, traditional knowledge and land. Benefit sharing of these resources requires that recipients must conserve these resources and use them sustainably. Collective benefit sharing is dependent upon egalitarian political and social relations and Andean principles of reciprocity and equilibrium (ibid).

In summary, the communities of the Potato Park will make a very interesting case study as the communities are in the process of developing a *sui generis* system for access and benefit sharing that draws upon the customary legal tools, institutions, principles and mechanisms of the communities. At the same time, the *sui generis* system is being developed in reaction to global and national changes in the governance of biodiversity and traditional knowledge as well as the perceived threat of biopiracy. As Peru is now in the process of adapting and implementing the Law for the Protection of Traditional

Knowledge, it is of critical importance to understand how this law will impact customary legal regimes of Andean communities to continue to protect their bio-cultural heritage.

Chapter 4- Methodology

Abstract: This chapter reintroduces the research questions that are the focus of this research project. A hypothesis is then developed, followed by an overview of the multi-level governance framework that was used to design the methodology, which comprises the final section of this chapter.

In order to understand the compatibility of the Peruvian Law for the Protection of Traditional Knowledge and the customary governance mechanisms of the ANDES Potato Park, this research project focuses upon three key research questions.

Research Questions

- In what ways does the Peruvian law for the Protection of Traditional Knowledge create opportunities to strengthen customary governance mechanisms of the ANDES Potato Park to manage traditional knowledge and associated biodiversity?
- In what ways does the Peruvian Law for the Protection of Traditional Knowledge threaten the ability of customary governance mechanisms of the ANDES Potato Park to manage traditional knowledge and associated biodiversity?
- How could this compatibility of the Law for the Protection of Traditional knowledge and customary governance mechanisms of the ANDES Potato Park be improved?

Hypothesis

The Law for the Protection of Traditional Knowledge can be implemented in a way that respects traditional governance mechanisms of Andean communities while at the same time recognizes and reflects international obligations of the state.

Theoretical Framework

These research questions will be addressed through a qualitative, case study approach, investigating multi-level governance of environmental resources. A multi-level governance approach was chosen to investigate how changes in biodiversity governance occurring at the international level and national level will impact local governance mechanisms. In other words this research project was designed to investigate how the Peruvian Law for the Protection of Traditional Knowledge, shaped by the Convention on Biological Diversity, will impact customary governance mechanisms of the communities of the Potato Park. As broad sweeping changes in environmental governance are taking place at the international level, it is becoming increasingly important, not only to investigate how this legislation will manifest at the national level but also how this resulting legislation will impact communities: those people who are most reliant upon biodiversity and traditional knowledge and at the same time most relied upon for the conservation and maintenance of these resources. It is well known that indigenous communities in Peru had very little involvement in the development of the Law for the Protection of Traditional Knowledge, so the purpose of this study is to gather the perspectives of those involved in the development of the law (policy makers and legal

experts) as well as those who are intended to benefit from the law (a grass roots NGO and a collective of indigenous communities in Peru). The findings of this case study will then be analyzed in correspondence with the theories of environmental ownership/multi-level governance as presented in the first chapter of the literature review to provide recommendations as to how the multi-level governance of these resources could be improved.

These research questions were investigated and analyzed within a multi-level governance framework from two broad perspectives: First from the perspective of national policy makers and legal experts involved in the development of this law; and secondly from the perspective of a grassroots NGO and community representatives who are developing and adapting local governance mechanisms to address many of the same issues. To add further depth to my research, additional interviews were held with experts in the field of biodiversity and traditional knowledge in Peru. These interviews will not be used in the analysis of the data collected, but rather to provide useful background information that will inform the analysis and discussion of the data

The Potato Park and ANDES NGO were chosen for this in-depth case study because ANDES and the communities of the Potato Park are currently working together to develop local a *sui generis* governance regime based on customary governance mechanisms to protect their knowledge and resources. The communities of the Potato Park are one of the only groups identified in the literature who are applying their customary governance mechanisms to address changes in the governance of biodiversity

and traditional knowledge at the national and international levels. Because the literature established that the communities of the Potato Park were working with ANDES in a participatory fashion to develop *sui generis* governance mechanisms based on customary law, it was assumed that there would be a generalized awareness of the issues within the communities upon which this study could draw. It is important to note that while the Potato Park may not be representative of other communities in Peru, it provides an extremely useful example through which to compare the compatibility of local and national and international governance mechanisms.

A qualitative approach was designed to allow for a detailed, personal and nuanced understanding of how national ABS policy will impact local community governance mechanisms. It is important to understand in great detail why this law was designed the way it is, the intentions of the law, and the views of individual policy makers and legal experts. For this reason qualitative interviews were selected as the most appropriate method for attaining this information from policy makers, legal experts and the employees of ANDES NGO. Work with the Potato Park was also qualitative in nature. It was designed in collaboration with ANDES staff and community members to be participatory and community led. Focus groups and community assemblies were held, in adherence with community norms and values in order to obtain detailed information about the views, principles and perspectives of community members.

Methodology:

Stage One: Policy Makers and Legal Experts

The first set of interviews were conducted in Lima with individuals who were involved in the development of the Law for the Protection of Traditional Knowledge, and/or are currently involved in the implementation of its principles, and/or have significant expertise regarding this piece of legislation. The purpose of these interviews was to understand: 1) how these individuals interpret the strengths and weaknesses of this law; 2) how these strengths and weaknesses are likely to impact customary governance mechanisms, and lastly; 3) how this law might be adapted or implemented to be more compatible with local systems of governance.

Semi-structured, open-ended interviews were held with eight individuals. Six of these individuals were participants in the Working Group on Traditional Knowledge. This working group consisted of various stakeholders who had been involved to various degrees in the development of the Law for the Protection of Traditional Knowledge. Interviewees represented various institutions including the National Institute for Natural Resources (INIA), the Peruvian Environmental Law Society (SPDA), and the International Potato Centre (CIP) and the National Commission against Biopiracy.

Stage Two: ANDES NGO, and Community Representatives of the Potato Park

The second stage of data collection approached the same basic questions from the perspective of representatives of a grassroots NGO, and the six communities of the Potato

Park. The purpose was to understand: 1) customary approaches to governing traditional knowledge and genetic resources; 2) how the Law for the Protection of Traditional knowledge is likely to strengthen or weaken these approaches; and 3) what could be done to make the two systems of governance more compatible.

Semi-structured, open-ended interviews were conducted with the director and a senior staff member of ANDES NGO. Following community norms, data collection with community members was participatory in nature including one focus group, and two community assembly meetings. After establishing contact with the director of ANDES NGO, it was suggested that I visit the communities of the Potato Park to discuss the intentions of my project. Along with NGO staff members and translators I appeared before the Potato Park general assembly (consisting of one leader from each of the six communities representing the community to the Potato Park) to present the intention of my research project. Community members discussed the merits of permitting community participation in my study and decided that this project may provide good exposure for their tourism program since I would be presenting my research in Canada as well as in other International settings.

The community assembly then decided in adherence with community norms, that the research project would be participatory in nature. It was decided that the first step would be to organize a focus group meeting in which the Potato Park leaders (one from each community calling themselves “barefoot technicians”) would travel to Cusco for one day to learn about the Law for the Protection of Traditional Knowledge and to

discuss my research questions. Following this meeting with the barefoot technicians, a larger community assembly meeting would be arranged in the Potato Park.

Following the focus group with the barefoot technicians, it was decided that the community assembly meeting would be facilitated by the barefoot technicians who would engage community leaders and relevant individuals in a discussion of my research questions. The meeting was held in the largest structure in the Potato Park, and brought together approximately 35 people. In attendance were the presidents of each community, the traditional leaders of each community, a women's medicinal plants collective, a women's artisans collective, as well as the barefoot technician from each community. NGO staff and translators were also in attendance for facilitation and translation purposes. At the community assembly I presented my research intentions and attained approval to meet with the assembly. After permission was granted community members broke into small groups to discuss my research questions. Once each of the groups had reached consensus, and formulated answers, the groups then came back together to present their responses to each of the questions. Each question was then presented to the entire group, who reached consensus on each question, which were presented to me orally, as well as on paper.

Ethical Considerations:

This research was designed to adhere to the guiding principles of the Canadian Tri-Council Policy Statement: the respect for human dignity; the respect for free and informed consent; respect for vulnerable persons; the respect for privacy and

confidentiality; respect for justice and inclusiveness; minimizing harm and finally maximizing benefit.

Prior informed consent was required from all participants prior to participation in the study. Interviewees were informed that there is no obligation to participate in the study and that they are free to leave at any point¹⁶. In the case of individual interviews, a consent form was provided and permission was granted in writing. In the case of focus group participation, and participation in the community assembly meeting consent was granted orally. This is justified because of cultural sensitivities regarding legal documents, a low literacy rate in the community, as well as language barriers.

It is expected that foreseeable benefits outweigh the risks associated with participating in this study. While there are numerous competing views on the issues being studied, there is already a lot of public discussion taking place on this issue. Participants will benefit from the ability to express their point of view, and/or the ability to engage in a dialogue about policies that impact them. Community members were pleased to hear that through the dissemination of research results, greater awareness of the Potato Park may be raised. Prior to fieldwork this research project was approved by the Ethics Board at Saint Mary's University.

¹⁶ Please see Appendix C for a copy of the Consent Form

Chapter 5- Findings

Abstract: Interviews and/or focus groups were carried out with three groups of informants: employees of ANDES NGO, members of the communities of the Potato Park; and finally legal experts and policy makers involved in the development of the Law for the Protection of Traditional Knowledge. In the beginning of this chapter, a chart is presented which outlines the major views put forward by each of the informant groups. Following the chart, the perspective of each group will be summarized in detail. In the next chapter these findings will be analyzed as they relate to the major research questions that are the focus of this research project.

Table 2: Findings

ANDES NGO			
Why are Customary Governance Mechanisms Important?	How is this Law likely to strengthen customary governance mechanisms?	How is this law likely to undermine or threaten customary governance mechanisms?	How can the compatibility of the two legal regimes be improved?
Protect complex local political, economic, ecological and cultural systems	The law is not likely to strengthen customary governance mechanisms	The law does not correlate with communities' view of "protection"	Top down nature of policy making should be reversed
Allow communities to maintain equilibrium		The law fails to protect the complex systems at the local level in which these resources are embedded	External actors should recognize that communities are rich in their own capacities to govern their resources
Allow communities to benefit from positive aspects of globalization and resist negative ones		Overly focused on protecting these resources as commercial products	External actors need to appreciate the local vision of the world

Allows communities to remain flexible and dynamic over time		The problem begins at The International level, with the misguided approach of The CBD	Community development of a <i>sui generis</i> system for the protection of their resources in accordance with customary governance mechanisms
Steer and guide community engagement with external actors		The process has been imposed from the top down, and has not involved indigenous peoples	Seek International support for this <i>sui generis</i> system
		Peruvian government's lack of respect for indigenous peoples	Possibility of emerging Potential to work with the local and regional governments
			Need to build bridges with the state political and economic processes in order to avoid conflict and total integration.
Community Members of the Potato Park			
Why are Customary Governance Mechanisms Important?	How is this Law likely to strengthen customary governance mechanisms?	How is this law likely to undermine or threaten customary governance mechanisms?	How can the compatibility of the two legal regimes be improved?
Central to the preservation of way of life	Communities are developing local registries which are also proposed and supported by the law	Deep suspicion of state-led conservation projects	Much of the responsibility for the conservation of these resources falls within the community itself
This is the mechanism which governs their conservation model	On the whole, community members were skeptical about the intentions and impacts of the law	Scope of the law is far too narrow	Efforts should be made to strengthen internal governance systems in order to protect these resources internally

Through these mechanisms communities ensure that their resources are not overly exploited and are conserved for future generations	The effort to prevent biopiracy will require external support	Does not offer protection for the complex and dynamic local processes that conserve these resources over time	It will be necessary to have external support to apply and enforce these mechanisms outside of the community
		May result in communities losing control of their resources	Need for greater coordination and organization across indigenous communities to minimize conflicts
		Likely to result in conflicts between communities when decisions are made regarding commonly held resources.	
		"Representative Organizations" do not truly represent indigenous communities and should not be responsible for granting prior informed consent	
Legal Experts and Policy Makers			
Why is the Law for the Protection of Traditional Knowledge Important?	How is this Law likely to strengthen customary governance mechanisms?	How is this law likely to undermine or threaten customary governance mechanisms?	How can the compatibility of the two legal regimes be improved?
The law has raised general awareness of indigenous knowledge and customary practices, both inside and outside of the community.	Requiring PIC gives communities the ability to make decisions based on their customs and norms	The development of the law did not have a proper participatory methodology	The law is a work in progress that will need to be adapted as it is implemented
The law was designed to be as non-authoritarian as possible and to give as much decision making control as possible to indigenous peoples	Tools of Western law can correspond to the needs and priorities of communities, if The correct linkages are found	The law was designed under the assumption that the CBD captures national needs	Creative use of intellectual property tools to mend the gap between the legal systems

The general purpose of the law is to compensate indigenous peoples for the environmental services that they provide		Intellectual Property Rights are inherently inconsistent with traditional governance Mechanisms	Need for educational efforts on the part of policy makers, as well as communities
		The law may facilitate outsider patents on traditional knowledge, undermining community governance	Increased political willingness for government and indigenous communities to work together
		The law may create perverse incentives for communities to undermine their long term interests, for short term monetary benefits	New/improved indigenous institutional coordination
		Representative organizations do not truly represent indigenous communities, and are not traditional decision-making structures.	New opportunities for meaningful state-community co-management are being opened up through The decentralization process.
		No mechanism for resolving disputes that arise between communities.	

Summary of Informant Group Perspectives

ANDES NGO

This set of interviews provided insight into the perspectives and opinions of two employees of ANDES NGO. Because employees demonstrated similar ideological positions, and there was a great deal of consistency in the opinions expressed in this set of interviews, they will be reported and analyzed as a group, rather than individually.

Why is customary governance important for the conservation of biodiversity and traditional knowledge?

The shared perspective among ANDES NGO representatives is based on the general ideological position that all local conservation initiatives must begin with a deep respect and understanding of a community's vision of the world. Following this line of reasoning, it is thus considered highly important to respect and understand the traditional governance mechanisms of these communities in order to develop appropriate state conservation strategies.

NGO staff explained that the major function of customary law is to conserve the complex political, economic, and ecological systems that exist at the local level. Customary law is dynamic, and is the means by which decisions are made to ensure that the complex local systems are maintained over time. One of the primary functions of local customary law is to maintain the overall diversity that local systems are based upon. Maintaining diversity within the community, including biological and intellectual diversity, is crucially important to ensure resilience and the long-term adaptability of the complex local systems. One NGO staff-member, explained that dynamic customary governance mechanisms of Andean communities could be credited with the very survival of these communities through historical processes of colonization, state intervention, and the forces of globalization.

Community governance mechanisms play a particularly important role in steering and guiding community engagement with external actors, and institutions including

national laws. Traditional institutions have an important function, by providing an accepted means through which communities can make collective decisions regarding the community interpretation and community response to relevant laws. NGO staff explained that often if a national law presents opportunities to strengthen the complex system and diversity in the community, then the relevant authorities would decide to adopt the useful elements of this law.

Alternatively, if a national law is determined to pose a threat to the local system, then the community governance mechanisms will reject those elements within the local laws. While in some cases, this process may create tensions between the two legal systems, it is necessary for communities to maintain strong local governance mechanisms in order to resist the negative elements of outside influences and benefit from the positive ones.

Interviewees applied and explained this general ideological position in relation to the communities of the Potato Park. One interviewee cautioned against a false assumption that there is one “indigenous law” operating in the Andes. However, interviewees noted that there are many common principles, prevalent in the communities of the Potato Park, which are shared with many other communities in the region.

Within the communities of the Potato Park, there are two distinct systems of local governance operating. On one hand, every year each community has its own authority that is elected to represent that community within national political processes. This

system of local governance was imposed through a state mandated initiative in the 1960s. According to one ANDES interviewee, these community officials are mainly responsible for providing the link with national authorities and the state led “modernization” process. It was noted that individuals elected to this position, are not necessarily revered within their communities, but more out of a sense of obligation to appoint someone to the position, the selection is often one of convenience.

According to interviewees, there is a parallel system of customary governance operating alongside this formal system in many Andean communities, and in all of the communities of the Potato Park. This is the traditional governance system. According to interviewees, these authorities continue to exert a great deal of influence in the communities of the Potato Park and in many Andean communities. Most of the structures and institutions that have existed in communities prior to the 1960’s and the creation of the formal system, remain under the jurisdiction of the traditional authorities. For example the traditional assembly of the communities remains under the sanction of the traditional authorities and is responsible for decision-making regarding land distribution, water management, and resolution of conflict.

A collaborative governance structure, linking the six communities of the Potato Park, constitutes a third type of governance structure operating in these communities. While the Potato Park governance system is recently created, it is derived from traditional governance principles and modes of operation, and is linked closely with the traditional governance mechanisms of each of the six communities. The Potato Park governance

system was created out of discussions that began in 2000 with elders and traditional institutions from the six communities as well as representatives of ANDES. At this time, there were many conflicts taking place between the communities of the potato park, and one of the major incentives was to develop a collaborative system to ameliorate these.

Through a co-evolutionary exchange of ideas, and a common belief in the need for a collective approach to conserving the entire landscape of the region, the Potato Park's governance strategy was developed. Each community now has an additional elected official known as a "barefoot technician" that is responsible for coordinating and representing their community in the Potato Park decision making, and collaboration with ANDES on Potato Park related activities. An intercommunity agreement is in the process of being negotiated, which will provide a common strategy for landscape conservation and identify common principles related to access and benefit sharing. Because both the governance mechanisms of the Potato Park and the Inter-community agreement are based on customary principles common to the six communities, they are considered by NGO staff to be derivative of customary law.

NGO representatives also provided useful information about the efforts of the Potato Park communities to conserve and maintain their genetic resources and associated traditional knowledge. All community efforts, it was explained, originate from the ideological position that traditional knowledge and genetic resources cannot be separated from the landscape and cosmo-vision within which they were developed and are being conserved. Accordingly, NGO staff explained that all community efforts to conserve

genetic resources and traditional knowledge are just part of a larger collective effort to conserve the landscape, and the complex systems in which these resources are situated.

How will the Law for the Protection of Traditional Knowledge strengthen

Traditional Governance mechanisms of the ANDES Potato Park?

NGO staff took the common position that it is not likely that the Law for the Protection of Traditional Knowledge will offer any significant benefits for indigenous communities in Peru. One interviewee proposed that should the Law contain elements that indigenous communities deem to be useful then these aspects would be readily introduced and integrated into community customary governance mechanisms. However, in the case of the Law for the Protection of traditional knowledge, NGO staff did not see much potential for this law to strengthen or protect the community system.

How does the Law for the Protection of Traditional Knowledge threaten the

Traditional governance mechanisms of the ANDES Potato Park?

Interviewees expressed a number of particular concerns, in addition to general skepticism, regarding the impact of the law on community governance of these resources. According to one interviewee, the first level of conflict can be seen in the way that the national and local levels of governance define “protection”. According to one informant discussing the community perspective, “protection” of genetic resources and traditional knowledge is just part of a large effort to conserve the overall wellbeing of the way of life. In other words, it is just one aspect of the larger effort to protect and manage the

complex system that provides a collective sense of well-being. From a community point of view this means such things as the protection of the free flow of genetic resources and knowledge, the protection of traditional governance, and the ability to make collective decisions regarding these resources.

In contrast, interviewees expressed that the Law for the protection of Traditional Knowledge is overly focused on protecting genetic resources and traditional knowledge solely as potential commercial products. Ironically, this form of protection undermines traditional uses and practices, over-emphasizes the benefits associated with the commercialization and privatization of these resources. The implementation of this law, threatens to interrupt traditional flows and practices that are central to the wellbeing of communities. In the words of one informant “a seed is not just a seed, but also a culture. It cannot be separated from the entire landscape”. Instead, the communities of the Potato Park use the concept of the Bio-Cultural Heritage as the concept at the centre of a much more holistic conservation project. Any paradigm for local conservation, it follows, has to start with a community vision of life.

NGO representatives expressed a common view that external conservation models including the Law for the Protection of Traditional Knowledge, are often much too narrow and based on an outsider’s vision of the world. Following this logic, it is not only the law for the Protection of Traditional Knowledge that is considered misguided, but one of the interviewees expressed the opinion that problem begins at the International level, specifically with the Convention on Biological Diversity as well as the Free Trade

Agreements with the United States. According to one ANDES employee, the objectives of the Convention, and specifically its focus on commercialization and commodification is at the root of the problem, as the entire approach has been a top down process beginning at the International level.

How could the compatibility of the Law for the Protection of Traditional Knowledge and the traditional governance mechanisms of the ANDES Potato Park be improved?

According to interviewees, collaboration could be improved if the top down nature of policy making is reversed, and begins instead with respect for local visions of the world. This is founded on the assumption that the communities of the Potato Park are rich in their own capacities to govern genetic resources and traditional knowledge. For this reason, ANDES supports the communities' efforts to develop a *sui generis* ABS system. However, at the same time, it was noted that it is very important to build bridges between various political and economic systems, in order to eliminate a potential source of conflict. It was noted that if communities don't integrate to some extent, they are likely to be dominated.

Two possibilities for bridging this gap were suggested. Both suggestions can be categorized as bottom up approaches to integrating state and local governance mechanisms. The first suggestion was that communities should seek international protection of their *sui generis* systems in order to gain state support. The interviewee, who suggested this approach, was quite skeptical about the motivation and the intention

of the Peruvian government with respect to indigenous communities in Peru. Describing the political system as being deeply corrupt and institutionally racist, this approach was seen as a way to gain external support, by first looking to the international community. The logic behind this approach was that if an international institution such as WIPO or IUCN offered recognition and protection of an international *sui generis* system based on the model of the Potato Park, then the Peruvian state would likely be required to come on board providing the external support necessary.

Secondly, it was suggested that there might be some emerging potential for communities to work more closely with the decentralized regional government. However in doing so, it was recommended that all decision-making regarding community resources must remain in the hands of the communities. However, optimism was expressed regarding the potential role that the regional government could play in terms of implementing and enforcing the Park's *sui generis* system outside of the community, and mediating potential conflicts between communities.

Finally, ANDES representatives recognized that while the threat of biopiracy is often over-stated as the primary threat to conservation of genetic resources and traditional knowledge, it is still a threat, and the state will have to be involved in its prevention. It was believed that the regional government is more likely to be more in touch with – and responsive to- the issues at the level of the community, and that there is a greater level of respect and trust for regional authorities. While the regional government is often quite

limited in terms of its authority, staff expressed optimism in the ability to work with the regional government who could then negotiate on their behalf for greater state support.

Community Members

While many experts caution against the assumption that community members speak with one voice, in the case of my work with the community members of the potato park, it was the choice of the elected Potato Park authorities (barefoot technicians) that all interviews be held in a group setting including potato park community traditional and formal authorities, a women's medicinal plants collective, and the representatives of the community to the potato park. Within these settings it was quite apparent that participants were expressing a commonly held perspective and all responses were given as a unified perspective. For this reason the perspectives of participants in both the focus group with the "barefoot technicians" and the community assembly workshop will be reviewed and analyzed as one.

What is the importance and function of community governance mechanisms?

Community members explained that traditional governance mechanisms are of central importance to the preservation of their way of life. These are the mechanisms by which the conservation model functions, and therefore when thinking about issues related to the protection of genetic resources and traditional knowledge, it is necessary to protect and conserve not only the resources but the entire conservation model, social arrangements and mechanisms for decision making. Traditional governance mechanisms

are the means by which communities strive toward the principle goal and conserve the ultimate benefit of these resources. The ultimate goal is to maintain complete control of these resources within the community, whereas the ultimate benefit is the daily use of these resources within the community.

According to one community member, protection of genetic resources and traditional knowledge, means having governance mechanisms in place that ensure that these resources are conserved for future generations. Traditional knowledge and genetic resources are not just resources, but they are connected to the entire way of life of the communities of the Potato Park.

Beyond explaining the importance of the traditional governance mechanisms of the Potato Park communities, community members explained how these mechanisms function and make decisions regarding traditional knowledge, and genetic resources. The basic premise governing exchange and sharing of these resources is the Andean principle of reciprocity or (*anyi* in Quechua), which community members explained is one of the guiding principles of all areas of their lives. As one community member put it, this means, “Good intentions are met with good intentions”. When making decisions regarding the exchange of these resources, decision makers will take into account why the outsider wants access to these resources and how external agents are likely to use these resources in the future. One community member explained that communities are quite content to share knowledge when an outsider expresses a justifiable need, however there are some types of knowledge that require complete secrecy.

Community members then described the traditional process for making such a decision. Communities generally require that an external agent desiring access to community knowledge and /or resources must present their intentions to the traditional community assembly, and clearly explain how each party will benefit from the exchange. The assembly, consisting of traditional authorities will then make a private decision based on both the intentions of the outsider, and the potential benefits for the community. There is no general rule of thumb for making such decisions instead each decision will be made on a case by case basis considering each situation independently. Community members expressed the importance of community governance mechanisms in this regard to ensure that knowledge in resources are shared in a way that benefits, rather than destroys or undermines the community way of life. While community members acknowledge that on various occasions they will turn to external organization such as ANDES to ask for guidance or training, in the end all decisions are made through internal institutions and decision making structures and communities remain in full control of their own decisions.

In what ways does the law for the Protection of Traditional Knowledge strengthen traditional governance mechanisms of the ANDES Potato Park?

Community members were not very optimistic about the opportunities for the Law for the Protection of Traditional Knowledge to strengthen internal governance

mechanisms. However, it was noted that the communities have already begun the process of developing local registries for the protection of traditional medicinal knowledge, so there is some synergy on that approach.

In what ways does the law for the Protection of Traditional Knowledge pose threats to traditional governance mechanisms of the ANDES Potato Park?

Discussion of the potential threats took up the majority of each of the meetings with the community. Most of the discussion was underpinned by a deep general suspicion of working with the state and state led conservation initiatives. Criticisms of the law focused around three major themes. The first criticism was that the scope of the law is far too narrow; secondly criticisms displayed deep suspicions of outsiders' intentions, and finally a fear of losing control of their resources. Community members shared a general feeling that the Law for the Protection of Traditional Knowledge fails to address many of the key issues regarding community members' perceptions of what it means to protect traditional knowledge. From this perspective protection encompasses not only protection of the resources, but also the protection of the landscape in which these resources are situated, the right to land, as well as protection of the governance mechanisms that conserve these resources.

Several community members felt that the definition of indigenous peoples offered in the law was too narrow, and noted that this term carries a lot of historical baggage. Secondly, a number of individuals suggested that the scope of the law falls short of

offering full protection of community traditional knowledge, in that it only protects that knowledge specifically related to genetic resources. It was emphasized that any effort to conserve traditional knowledge must begin with a broader vision, recognizing the interconnection of traditional knowledge with culture, language and local agricultural systems.

Also in order to protect traditional knowledge and genetic resources, community members explained that it is not appropriate to focus on conserving these resources as if they are in a museum, but also efforts must be taken to conserve the complex and dynamic processes which conserve and continue to develop and improve these resources. To protect traditional knowledge and genetic resources means also to continue to seek diversification at the community level. These complex and dynamic governance processes are also necessary to ensure that knowledge is respected and passed down to the next generations.

Finally community members stressed that the threat of biopiracy is not the only threat to the conservation of traditional knowledge and genetic resources. These resources are also being undermined by other external factors such as the church, the introduction of modern technologies, the influence of encroaching urban centers and the formal education system. Community members also addressed a number of fears regarding outsider's intentions, and the effect that this law is likely to have on the ability of communities to retain decision-making control over their resources. Deep suspicion of government intentions was expressed throughout both meetings. In trying to understand

the purpose of this study, one community member pointedly asked, “and you think that they would listen to us if we wanted to change the law?” Community members also expressed deep fears about the patent system and outsiders’ intentions to misappropriate and commercialize their knowledge and resources. In almost every discussion regarding outsiders’ use of community knowledge and resources, focused on the case of an outsider wishing to patent the resource for commercial purposes. Community members were very skeptical of the patent system, as they felt that it was designed for individually held rights to knowledge, and in a worse case situation may undermine the community’s ability to continue to use and govern and exchange their resources.

Community members addressed a number of concerns, related to the effects that this law will have on their ability to maintain decision-making control within the community. Of primary concern was the significance given to “representative organizations” in the Law for the Protection of Traditional Knowledge. It was noted that the communities of the Potato Park are not formally affiliated with any “representative organization”. Additionally, the communities generally felt uneasy and expressed opposition to the idea of being represented and giving formal decision-making control to an external institution. Community members were very clear that they intend to represent themselves as the Potato Park, and all decision making regarding their resources should be made by traditional authorities within each community.

While there was no question about where decision making authority should remain, community members expressed concern that the system set out in the law is

likely to create conflicts between and among communities who have different views about how to manage commonly held knowledge and resources. The general sentiment was that no one community should receive benefits for knowledge and resources that are shared commonly amongst communities. Community members discussed possible solutions to this problem and concluded that they are not in the position to suggest a solution for a problem that is foreign to them.

In what ways could the compatibility of the Law for the Protection of Traditional Knowledge and Customary Governance Mechanisms of the ANDES Potato Park be improved?

A number of recommendations were made in terms of how the communities of the Potato Park could work with the state in the effort to preserve traditional knowledge and genetic resources. First, community members acknowledged that much of the responsibility for the conservation of traditional knowledge and genetic resources falls within the jurisdiction of the community itself. In some cases the protection of traditional knowledge and genetic resources can be done by strengthening internal systems, which is exactly what has been done in the case of the communities of the Potato Park. One individual noted that the strengthening of community governance mechanisms has not only provided greater protection for existing resources but has also succeeded in bringing back traditional resources that had been lost to the communities through the repatriation agreement with the International Potato Centre. Community members stressed that this type of initiative does not require state intervention and provides an effective means of preserving this knowledge for future use within the community.

While recognizing that the community itself has a strong role to play, community members were also cognizant of the fact that this effort will also require some external support. For example, community members recognized that traditional governance mechanisms are not effective mechanisms for protecting against the threat against biopiracy. While biopiracy is only one of a wide range of threats, it was suggested that communities require state support to develop a system to protect against outside appropriation of their resources.

In order to do this community members stated that ideally the state would recognize and enforce community governance mechanisms. While community members expressed hesitation regarding the codification of their laws, it was proposed that the state could play an important role in helping communities to enforce their laws outside of the community. There was a general sentiment that all national laws should recognize and legitimize local laws. While community members expressed optimism about working with external institutions in this process, they remained adamant that decision making authority must remain at the level of the community.

At the same time, community members addressed the fact that community laws, and governance mechanisms are not consistent across all indigenous communities in Peru. In order to remedy potential conflicts it would be necessary to create effective institutions for decision-making and conflict resolution across indigenous communities sharing common resources and knowledge. One community member suggested that the

development of an indigenous congress might be useful to address this institutional/organizational gap. Another community member suggested that it would be better for communities to organize within each district, working up toward the district, provincial, regional and national recognition of customary governance mechanisms.

Community members felt that a bottom up approach to governance would allow for a broader approach based on community needs and would ensure that national conservation efforts would not undermine the culture and traditions that exist at the local level. Any effort to conserve community resources must strengthen rather than undermine local systems and should be consistent with community values, for example the guiding principle of reciprocity. The national access and benefit sharing system must reflect the fact that the ultimate goal of community conservation is continued day-to-day use of their resources, and the ultimate goal is to maintain internal control of these resources through their customary governance mechanisms.

Legal Experts and Policy Makers

Background Information on the Development and Implementation of the Law for the Protection of Traditional Knowledge

Interviewees were very consistent in the view that there is a big gap between what the Law for the Protection of Traditional Knowledge says and how it is being implemented. A number of interviewees were candid about the fact that at the time of the interviews very few benefits have been accrued to indigenous communities as a result of

this law. Many interviewees expressed the view that the law is a work in progress, and that as it moves into the implementation phase it will need to be simplified, and adapted to respond to challenges and gaps. In the words of one interviewee, what exists now “is more political than it is practical. Basically there have not been a lot of benefits accrued, this is just a draft”.

A number of interviewees noted that the process of the development of the law did not have a proper participatory methodology. More specifically, there was a common perspective that indigenous communities were not adequately represented in the design of the law. During the development of the law, policy makers were working under tight financial and time constraints, and at there was a lot of pressure coming from international bodies, as well as from different domestic interest groups. A number of interviewees explained that the law was designed to fulfill Peru’s obligations to the Convention on Biological Diversity under the assumption that the CBD captures national needs. Also, explained one interviewee, the Peruvian government is strongly committed to a number of bilateral trade agreements (Singapore, U.S., Canada and China) which take precedence over international and national laws and will undoubtedly have influence over the implementation of this law. A number of interviewees expressed concern about the fact that there is no coherent national mechanism for decision making related to ABS, and that government ministries are fragmented and disorganized when it comes to this issue. Some ministries are more interested than others in pushing biotrade, and further confusion comes from the fact that jurisdiction over biodiversity and traditional knowledge is shared by two different government ministries (INIA and IRENA).

While a number of interviewees expressed concern about the process and the content of the law, many interviewees shared the view that the law is not yet in its final state, and that the intention of policy makers involved in its development were good. The ultimate goal was to design a national system for the protection of traditional knowledge that would contribute to improving the livelihoods of indigenous people. One interviewee explained that while the process was not sufficiently participatory, those who did participate in the development of this law (mainly intellectual property lawyers) designed the law to be as non-authoritarian as possible. In the design of the law, policy makers took account of the fact that the state has not always been seen as a good representative of indigenous peoples.

How will this law strengthen customary governance mechanisms?

While for the most part there was agreement regarding intentions and the process of developing the law, when it came to assessing its potential impacts on customary governance mechanisms perspectives became much more varied.

Of the eight individuals interviewed, only one felt that the law for the Protection of Traditional Knowledge could potentially strengthen customary governance. Two other interviewees felt that the law may benefit communities, which would have indirect positive impacts on the customary governance mechanisms.

The individual taking the former perspective noted that the law requires that communities provide prior informed consent before outsiders are able to use their traditional knowledge. This provision, thus, provides a window of opportunity to make decisions based on their particular customs and norms within the community. At the same time this individual argued that it is quite possible for western law and customary law to be compatible. This interviewee argued that while the interests in community may be different than those outside the community, it is usually quite possible to find a western legal tool to correspond to community interests and needs. For example in communities there is often a sense of collectiveness and an aversion to the institution of private property, but at the same time there is a strong sense of what belongs to the community and what does not. This individual proposed that the tools of western law, can correspond to these needs and priorities, and can be used to protect the collective property of communities. The purpose of this law, according to this interviewee, should be to find the correct linkages between the two systems of law. While rejecting the proposition that there is an inherent and radical divide between the two systems, this interviewee instead argues that Western law has to be used and applied creatively in a complementary fashion.

Others argued that the law for the Protection of Traditional Knowledge might indirectly strengthen customary governance mechanisms. One of the indirect benefits has been a general awareness rising of the importance of indigenous knowledge and customary practices, both inside and outside of the communities. One interviewee argued that this Law is creating conscious development within the communities. Using the

Potato Park as an example, it was argued that many communities are likely to organize and respond to the issues raised in the law, reinvigorating and adapting traditional decision making processes. Another interviewee proposed that this law might indirectly strengthen community systems, by providing positive economic incentives for people to stay in the community, addressing the threat of migration to customary practices. In the words of this individual, *“In order to have vibrant communities, we need to provide some incentives for people to stay. The Law is intended to compensate indigenous communities for the services they are providing”*.

How is this law likely to threaten customary governance mechanisms?

All policy makers interviewed felt that there was at least some degree of risk that the implementation of the current law may undermine or pose challenges to customary governance mechanisms. While the degree of risk expected varied from interviewee to interviewee some common themes emerged. These concerns included the fear that biopiracy may in fact be stimulated, and that intellectual property rights are inherently inconsistent with traditional governance mechanisms, that the incentive structure resulting is inappropriate, and finally that conflict may result as an effect of under-representation of indigenous communities.

A few of the policy makers held the view that the Law for the Protection of Traditional Knowledge may actually facilitate rather than prevent biopiracy. A major problem from this point of view is that the law is overly focused on facilitating the commercialization of traditional knowledge. According to one interviewee, this is

basically a result of a lack of vision stemming from the Convention on Biological Diversity.

Another participant felt that while, facilitating biopiracy is certainly not an intended outcome of the law, there is a risk that its complexity may force outsiders to work outside of the law, or to go to another country to acquire the same resource. Along the same lines, one interviewee also argued that the law was negligent in preventing biopiracy, by exempting all traditional knowledge that has been in the public domain for more than 20 years, from its regulations. Another interviewee was more concerned about the misappropriation of genetic resources and traditional knowledge at the hands of the government stating that, *“this government is very paternalistic. I’m sure the money will stay in Lima”*.

A second inconsistency highlighted by interviewees was the perceived conflict between Western intellectual property rights and community governance mechanisms. In contrast to the position reviewed in the previous section, a number of interviewees felt that intellectual property tools are entirely inappropriate and undermine communities’ ability to manage their resources according to their own mechanisms. One interviewee explained that intellectual property tools are effective tools for protecting and enforcing individual ownership, however in the case of collective ownership these principles are entirely wrong. The reliance of the Law on existing intellectual property tools will inherently undermine traditional governance mechanisms and force communities to adapt the management of their resources to correspond with western conceptions of ownership.

A few interviewees worried about the impacts of outsider patents on plants traditionally grown and used in communities. The major concern here was that farmers' ability to commercialize and export their crops might be undermined.

Another level of conflict discussed mainly by two interviewees, was the nature of incentives offered by the law. One point of view was that the design of this law might unintentionally provide perverse incentives (mainly commercial) putting pressure on communities to make decisions that may or may not be in their long-term interest. It was argued that while the law relies too heavily on short-term commercial incentives, it failed to recognize other priorities in communities such as health, food security, and education. At the same time the working group that created the law failed to recognize that community cultural pride is a major motivating factor in community conservation efforts. Rather than nurturing this pride, the law may actually undermine traditional incentive structures. One interviewee explained the lack of indigenous participation in the development of the law, as an indicator of community priorities. "Communities did not come to our meetings, even when they were invited, because they simply have different priorities".

The majority of interviewees expressed concern that the decision-making processes promoted in the Law may actually undermine traditional governance mechanisms. A major concern was the Law's reliance on "representative organizations" to make decisions and provide consent on behalf of communities. One interviewee opposed this function, because representative organizations are not traditional decision-

making structures. Another interviewee criticized the undemocratic nature of representative organizations stating that they are an ad hoc system, mostly funded by international donors, and tend to only represent a small group of communities and again only a small fraction of those within each community.

Criticism was also levied at the law's approach to resolving conflicts between communities. While the law proposes that when making decisions, communities should try to the greatest extent possible to inform other communities about the decision, one interviewee felt that this is not enough, and that by failing to resolve discrepancies at the community level may actually lead to conflicts between communities.

Another concern is that the law does not respect the different priorities and interests of various communities. According to one interviewee, "I think that all communities have traditional governance mechanisms to govern their traditional knowledge and genetic resources; however there is not one traditional governance system, but a series. For example for some communities the concept of private property is quite foreign, but others are much more commercially oriented. This may create problems at the local level". There was also concern that the major differences between the Andean – and Amazonian cosmologies were not accounted for.

Legal Experts and Policy Makers: How could the compatibility of the two legal regimes be improved?

Policy makers and legal experts presented a range of suggestions about how the gap between the traditional governance mechanisms and the Law for the Protection of Traditional Knowledge could be mended. While only one or two interviewees championed some suggestions, it is notable that a few of these suggestions were advocated strongly across the interviewees.

One interviewee advocated for the creative use of intellectual property tools as a practical and effective way to protect traditional governance mechanisms. This individual confessed that the law would need to adjust its current usage of intellectual property laws, to correspond with traditional governance mechanisms; however the essential similarities between the two systems of law should correspond with existing tools. S/he reasoned that there is a need to move beyond thinking of intellectual property tools simply in terms of patents, and to recognize that there are other effective tools out there including trademarks, appellations of origin, breeders' rights, copyrights, as well as a number of external instruments that can be used to strengthen local systems. The same interviewee further acknowledged that a challenge to this approach would be overcoming the great degree of suspicion and misunderstanding of intellectual property tools within communities.

While this first interviewee felt that the law simply requires some minor tinkering to become more compatible with customary governance mechanisms, at the other extreme was an individual who felt that the entire approach of the law is overly focused on the prevention of biopiracy, and advocated for a much more holistic approach for the

protection of traditional knowledge and biodiversity. This interviewee proposed that the entire scope of the legislation should be reworked to address other more challenges in the areas of health care, education, agricultural extension, and organized religion to name a few.

A couple of individuals took the position that the problem of compatibility is rooted in government priorities, and therefore the solution will require political willingness of those in decision making roles. Accepting that the current government simply has other priorities, this individual felt that the solution would depend largely upon the priorities of the incoming government.

While suggestions for increasing compatibility were quite diverse, there was a great degree of consistency with regard to two issues. These are the need for new institutions to truly represent indigenous communities in Peru, and secondly the need for increased efforts in cross cultural education.

Most interviewees agreed that the representative organizations that exist now are not appropriate to play the important function that they are given in the law. While interviewees did not criticize the efforts of these organizations, they were seen as inappropriate for a number of reasons including the fact that they are not traditional structures or derived from traditional structures, they do not represent all communities in Peru, and they are prone to conflict with each other. At the same time, it was widely proposed that indigenous communities need institutions through which they can organize

effectively to make collective decisions, thereby minimizing conflict among and between communities. A variety of solutions were proposed about how this could be done, and what these institutional structures might look like.

One interviewee suggested that an appropriate institutional response would be for communities to join together to develop collective protocols outlining their approach to protecting and regulating their traditional knowledge. This interviewee suggested that it would be logical for communities to organize by ethnic group and possibly even across borders in the Andes region for these protocols to be truly representative. Yet another interviewee cautioned that there is a need for very fresh thinking about how this type of organizational structure would be set up. In the past there have been state efforts to set up “representative bodies” and from the perspective of this individual these efforts have been a “disaster”, but felt that there may be some useful and interesting opportunities for a new approach working with the regional and local authorities.

This interviewee was not alone in this perspective. A number of interviewees felt very positive about the new possibilities opening up as a result of the ongoing decentralization process in Peru. It was suggested that indigenous communities would likely be more successful in having their interests reflected in legislation and regulations at the level of the local government. One interviewee felt hopeful about the prospect of having the national law translated into local regulations, which would be more suitable for each particular locality.

At the same time it was cautioned, that while conceptually the prospect of communities working more closely with the regional and local governments is a possibility, this is something that will take time as these governments are still in the process of evolving and adapting to their new roles. Another limitation is the geographical distribution of these governments. In order for the local government to represent local communities effectively it will be necessary to redistribute local government boundaries to reflect the current situation. From this perspective it is still too early to predict the outcome of the decentralization process, but it may present an important and meaningful opportunity to build capacity and relationships at the regional level.

By far the greatest degree of agreement among the legal experts and policy makers was around the need for intercultural exchange through education to soften the divide between state and local governance mechanisms. It was proposed that increased awareness and education are needed at both the level of the community as well as amongst policy makers in order to mend the ideological gap.

One expert pointed out that most policy makers are not familiar with what is happening inside communities. One rather obvious way of increasing this understanding is to encourage greater participation of indigenous communities in the law making process. It was proposed that the national education system in Peru could facilitate needed intercultural exchange by designing curriculum that celebrates indigenous cultures and ethno-diversity.

Policy makers also called for education and awareness-raising efforts at the local-level. Specifically, it was proposed that community members must be educated about the law and the legal principles that it entails in order for them to respond in an informed manner. Specifically, one interviewee stressed that community members must be made aware of the fact that this law is being developed to benefit indigenous communities. Another interviewee followed this logic, stressing that it is important that community members have a realistic impression of the type and quantity of benefits that are likely to arise.

Also, in order to counter-act the perceived suspicion amongst community members it was suggested that community members need a better understanding of both the intent of the law, as well as the tools that are being used. For example, one interviewee explained, that there is still a great degree of misunderstanding of intellectual property tools at the community level. For example the risks of outsider patents have been greatly inflated, and are not likely to interfere with the communities' ability to engage in traditional practices.

Finally, there was agreement that if community members are to be responsible for making decisions such as granting prior informed consent, it is imperative that they are aware of and understand their rights with respect to this law.

Chapter 6- Analysis of Findings

Abstract: This chapter will draw upon the Findings presented in the previous chapter to answer the major research questions set out in this research project. In this chapter the perspectives of each of the major informant groups will be analyzed together to synthesize answers to the following questions: “In what ways does the Law for the Protection of Traditional Knowledge create opportunities to strengthen customary governance of traditional knowledge and genetic resources in the ANDES Potato Park?”; “In what ways does the Law for the Protection of Traditional Knowledge threaten customary governance of traditional knowledge and genetic resources in the ANDES Potato Park?”; and finally, “How could the compatibility of the Law for the Protection of Traditional Knowledge and the customary governance mechanisms of the ANDES Potato Park be improved? To conclude this section the findings of this section will be analyzed in relation to the theory of community based co-management introduced in the first section of the literature review.

Research Question 1: *In what ways does the Law for the Protection of Traditional Knowledge create opportunities to strengthen customary governance of traditional knowledge and associated biodiversity in the ANDES Potato Park?*

- *Necessity for Co-management*

Interviewees from both major stakeholder groups recognized that biopiracy is a significant threat that cannot be prevented by traditional governance mechanisms alone. While traditional governance mechanisms are the primary means of making decisions within communities and sometimes even between communities, it is very difficult for communities to enforce these mechanisms on outsiders and to prevent the misappropriation of their resources. Thus it is certain that in order to address these issues communities will need the support of external institutions in order to protect themselves against external threats.

At the same time, traditional governance mechanisms are integrally important to the maintenance and conservation of traditional knowledge and genetic resources *within* communities. Any state-led effort to conserve and protect these resources must strengthen rather than undermine the systems in which these resources are embedded and conserved including the traditional governance mechanisms. So while traditional governance mechanisms are not capable of being entirely effective on their own, they can and must play an important part in the state institutional structure for the protection of these resources. This creates a real possibility for meaningful state-community co-management.

- *Both regimes are flexible, dynamic, and capable of Adapting to New Realities*

While these two governance regimes are not yet entirely compatible, it is significant that both regimes are not static or inflexible. The law for the Protection of Traditional Knowledge is a work in progress and policy makers recognize that it will need to be modified in a process of trial and error as it is being implemented. It is also widely recognized by policy makers that the level of indigenous involvement in its development was minimal and thus what is on paper now may be nothing more than a starting point to jump off from. On the other hand, the very nature of customary law is a system of governance that is dynamic and changes over time to adapt to new realities internal and external to the community. The communities of the Potato Park recognize that it is possible to benefit from outside opportunities and that it is not in their benefit to

remain in isolation. The flexibility of the two regimes creates the possibility for increased compatibility in the future.

- *Mutual Recognition of the Importance of Local Control*

Policy makers explained that the Law for the Protection of Traditional Knowledge was designed to be as non-authoritarian as possible, and to give as much decision making control as possible to indigenous peoples through the enforcement of prior informed consent. While it was the “representative organizations” rather than the communities themselves that were granted the authority to provide prior informed consent, the law does demonstrate a willingness of the state to decentralize decision-making with regard to traditional knowledge. However, there are still important questions to be answered about the ability of these organizations to truly represent community interests, and the importance of community decision-making.

- *Western Law and Community Governance Mechanisms are not Inherently in Conflict*

While it was evident that there was a degree of suspicion of Western legal institutions (especially externally held patents) within the community, it was also apparent that the communities were starting to use some intellectual property tools to their own advantage such as local registries within the community. If communities are educated and accepting of Western tools, they can be used creatively to bridge the gap between the two systems of governance.

Research Question 2: *In what ways does the Law for the Protection of Traditional Knowledge threaten customary governance of traditional knowledge and associated biodiversity in the ANDES Potato Park?*

- *Undermines Community Cosmo-Vision*

The law for the Protection of Traditional Knowledge and the Convention on Biological Diversity originates from a Western view of the world. Customary Governance mechanisms on the other hand originate from entirely different cosmologies. Thus it is not only the principles of the particular legal regimes that will need to be bridged, but also their fundamental moral and ethical underpinnings.

- *Conservation Approach too Narrow*

There is a general sentiment amongst community members and even some policy makers that the law for the Protection of Traditional Knowledge is too narrow, and particularly overly focused on the commercialization and commodification of these resources. The law over-emphasizes biopiracy or outside misappropriation of these resources as the principle threat to the conservation of traditional knowledge and genetic resources and at the same time ignores other more pressing concerns such as the loss of language, outward migration, western education, and encroaching urban centres.

- *Divergent Ideas about “Protection”*

It is evident that a wide range of opinions exist as to what it means to truly “protect” traditional knowledge. On one hand within the circles of policy makers and legal experts “protection” is commonly thought of in terms of protecting against biopiracy and protecting indigenous communities’ rights to commercialize and receive monetary benefits from outsiders’ use of their resources.

An alternative vision of protection promoted by community members as well as a number of other interviewees is much more holistic. This vision recognizes the embeddedness of these resources within complex local systems and the importance of maintaining decision-making control within the community. This vision of protection is foremost concerned with the protection of the day-to-day uses of these resources within the community. It also encompasses the right to land, the protection of the free flow of seeds, as well as maintaining control of these resources so that they can be passed on to future generations. In addition to the threat of biopiracy, other threats were identified such as Western education, agricultural extension and the introduction of modern technologies, encroaching urban centres, outward migration, and the loss of culture and language within the communities.

- *Assumes common interests across Indigenous Communities*

By granting decision making control to “representative organizations” this legal regime assumes that these organizations are capable of representing the “indigenous perspective”. This does not account for the fact that there is not one “indigenous law”, but a diverse and sometimes competing series of “customary laws” across indigenous communities. It is necessary for the law to recognize this variance, and to develop an acceptable mechanism for solving disputes amongst communities.

- *Institutional Structure for Representation and Decision Making is Inappropriate*

Evidence from this research project demonstrates that the current “representative organizations” in Peru are not appropriate institutions to grant prior informed consent and to make decisions on behalf of communities. The communities of the Potato Park contested this system, stating that these organizations do not represent them, and that they do not feel comfortable with external organizations making decisions about their resources on their behalf. This current system is likely to create conflicts between communities, with only a limited number of communities feeling “represented” by this ad hoc system of institutions. “Representative organizations” are not elected by indigenous communities, but are rather an ad hoc system of organizations, which largely receive their funding and legitimacy from external international donor organizations.

- *Deep Suspicion of Western Law and Outsider Intentions*

Any attempt at co-management will require a softening of community suspicion and resentment towards the Western legal system and the state. It was evident that the communities of the Potato Park have a deep-rooted concern and suspicion of Western tools, especially patents, as well as the intentions of policy makers to hear their voices, and represent their interests and concerns.

Research Question 3: *How could the compatibility of the Law for the Protection of Traditional Knowledge and Customary Governance Mechanisms of the ANDES Potato Park be improved?*

- *Greater Participation*

It is essential to the legitimacy and effectiveness of this Law that indigenous peoples meaningfully participate in the adaptation and implementation of this Law. It was evident in the background research and interviews with policy makers and legal experts that opportunities for participation have been extremely limited, and that despite positive intentions the design has largely been a top-down process beginning with the negotiations at the Convention of Biological Diversity. In order for this law to respect and correspond with customary governance mechanisms it is imperative that the pressures stemming from International agreements are balanced with the needs, interests and conservation methods of indigenous peoples of Peru. There will be a need to re-open this discussion with communities across Peru, even if this means significantly adapting the current legal framework.

- *Education and Inter-cultural Exchange*

There is a need for education and intercultural exchange between those individuals creating policy and those who will be most affected by its impacts. On one hand, it is evident that policy makers would be more effective in their roles, if they had a more vivid and nuanced understanding of what is actually happening inside of communities and what these communities have been doing for millennia to govern and manage their resources. A second benefit of establishing participatory processes would be the education of policy makers through discussions and negotiations with policy makers. In particular it is especially important for policy makers to understand the complexity of what is happening at the community level and the importance of customary governance mechanisms in maintaining these systems as well as the diversity that sustains them.

On the part of the community there is also a desperate need for educational efforts. There is a deep suspicion of this law, and outsider intentions within these communities, and improved communication pathways in addition to education is likely to chip away at these old wounds. Not only is there a deep suspicion of outsiders, but also a deep misunderstanding and hesitancy towards Western legal institutions and tools, including intellectual property rights. While some tools resonate better with communities than others (e.g. trademarks, local registers) it is important that communities have a better understanding of other Western legal tools and how they could be utilized to

support their interests and efforts in order to be empowered to make more informed decisions. At the same time, education and capacity building efforts in the importance of strengthening and traditional governance mechanisms would allow more communities to remain active in governing their resources.

- *Recognize and Enforce Traditional Customary Governance Mechanisms*

Given the integral role and function of traditional governance in the maintenance and conservation of traditional knowledge and genetic resources, it is imperative that any national law for the protection of traditional knowledge must strengthen rather than undermine these local mechanisms. Any system that does not account for these local systems is not likely to achieve the long-term objective of conserving traditional knowledge and genetic resources.

The law should make use of the fact that Andean communities are generally rich in their capacities to govern their local resources, in fact this could be thought of as a facet of traditional knowledge in itself. It is evident that at the local level, it is conceptually impossible to separate traditional knowledge and genetic resources from the landscape and the cosmologies in which they are embedded, developed and conserved. It is thus necessary for any effective effort for the conservation of traditional knowledge to address not only the need to conserve these particular resources but also the complex systems in which they are situated.

While it is recognized that communities themselves will play an important role in the conservation of these resources, the scope for state protection must be widened to incorporate other concerns. As the law is adapted it will need to reflect the fact that local ideas about the “protection” of these resources may differ from the Western ideas about the need to provide financial compensation for environmental services. From the perspective of these communities, protection should incorporate protecting day-to-day use of these crops, and to continue to maintain control of these resources within the community. At the very least, the Law for the Protection of Traditional Knowledge must be designed so that it does not undermine other aspects of the complex local system in its effort to protect these resources.

Given that the purpose of this law is to benefit indigenous peoples, and its approach is to be as non-authoritarian as possible, there may be a possibility for meaningful co-management whereby the state legislation aids in the recognition and external enforcement of traditional governance mechanisms for the protection of traditional knowledge.

- *Institutional and Organizational Structures*

There is a need for new institutional and organizational structures to enable meaningful participation of indigenous communities in decision-making processes and to allow customary governance mechanisms to become part of the institutional structure for the protection of traditional knowledge in Peru.

Vertical Linkages

It can be concluded that communities are not able to protect their resources from threats such as biopiracy on their own, and that there will be need for co-management of some sort with external actors to have their governance mechanisms enforced outside of the communities. One emerging possibility is the opportunity for communities to link more closely with the local and regional governments as Peru continues to implement its decentralization process. While there are concerns about the sharing of power and distribution of local governments, there does seem to be a greater level of trust and understanding with the local governments than with the state. Further consideration should be given to developing regional indigenous protocols derived from traditional governance mechanisms that could be implemented and enforced by the regional government.

Horizontal Linkages

On one hand it is evident that the laws reliance on “representative organizations” to make decisions on behalf of indigenous communities is not popular with the communities of the Potato Park. At the same time in order to minimize conflicts between communities sharing the same resources, and recognizing that there is not one indigenous law operating in communities across Peru, it is necessary that communities develop some way of communicating, collaborating and making collective decisions regarding shared knowledge and resources.

Recognizing the importance of community traditional governance mechanisms in this effort, one possibility is that communities come together to form an indigenous congress, or develop indigenous protocols as collective statements about how decisions regarding their collective knowledge and resources will be made. This type of organization, like the collective governance of the Potato Park, could be derived from customary legal principles and is therefore more likely to be compatible with these mechanisms.

If communities are willing to work with the local and regional governments in this process, it may make sense for each region to develop an indigenous institution to provide this function. Communities organize across each district to create indigenous protocols, and the local government can be the link with the state in the effort to enforce these protocols.

- *Overcome Misunderstanding and Suspicion*

Given the high degree of misunderstanding and suspicion within the communities towards the state and state institutions, meaningful participation of indigenous peoples in the adaptation and implementation of this law may provide an extremely important opportunity for changing perceptions and attitudes regarding state-community collaboration.

Discussion of Findings:

To conclude, the findings of this research paper suggest that the Peruvian Law for the Protection of Traditional Knowledge, in its current form, is likely to undermine customary governance mechanisms unless great efforts are taken in order to adapt this law to make it more compatible with the interests of indigenous communities. In order for the compatibility of the governance regimes to be improved, there will need to be meaningful involvement of indigenous peoples in the adaptation and implementation of this law; increased efforts for education and intercultural exchange amongst stakeholders (most urgently amongst policy makers and indigenous communities); respect and recognition of the importance of traditional customary governance mechanisms to the protection of biodiversity and traditional knowledge; creation of new institutional and organizational structures; and lastly trust building amongst stakeholders.

The weaknesses of the current system may be ameliorated by strengthening the partnership of state and local actors in the governance of traditional knowledge and biodiversity. The theoretical arguments for community-based co-management were reviewed in the first chapter of the literature review. The basic rationale for this management strategy is to share power and responsibility amongst state and local resource users in order to draw upon the relative strengths and minimize the relative weaknesses of both centralized state control and local resource management functioning independently. The following chart summarizes the strengths, weaknesses, and feasibility of implementing a community- based co-management strategy.

Table 3: Overview of Community Based Co-Management

Summary Chart: Community- Based Co-management of Natural Resources				
Strengths	Weaknesses	When is it beneficial for the state?	When it is beneficial for communities?	What are the necessary preconditions?
Co-management systems constantly adapt in a mutual system of co-learning	Risk that there may not be a real distribution of power	Local actors historically held legal rights	When powerful actors are encroaching on resources that were historically held by communities	Appropriate institutions
Minimize risk of conflict	Coercive relationship may result	Local interests rely upon the successful management of resources	When external factors undermine traditional governance mechanisms	Trust between actors
Incorporate multiple knowledge systems, broad range of social actors	There may be a distribution of responsibility without any real distribution resources	When making controversial decisions	Local governance mechanisms are no longer to manage resources alone	There are incentives for legal protection of local rights
Support communities where they are unable to manage their resources alone		When resource conservation necessitates the linking of various knowledge systems, cosmologies and values		There are incentives for communities to conserve their resources.
Builds upon community capacities, including space specific information		Institutional actors are willing to collaborate		
Draws upon state capacity		There is adequate time and resources to design, facilitate, and implement the co-management system		

Are the strengths and weaknesses of community-based co-management applicable to the governance of traditional knowledge and biodiversity in Peru?

Findings of this study indicate that in theory many of the weaknesses of the current access and benefit-sharing regime in Peru could be improved by the successful implementation of a community based co-management regime. One of the theoretical strengths of a co-management regime is that co-management regimes continue to adapt in a co-evolutionary process of mutual learning. Given the nature of the resources at hand, as entities that will continue to change and evolve over time, as well as the fluid and flexible nature of customary governance mechanisms it is imperative that the elements of a national governance system must also be capable of adapting and changing over time through a process of co-learning.

Secondly co-management theorists propose that these governance systems are likely to reduce the risk of conflict between social actors. This strength is particularly relevant to the current ABS system in Peru, as one of the major concerns expressed at the level of the community was that changes in the national governance of these resources might result in increased conflict within and between communities. Ultimately any system designed to effectively protect these resources must contain conflict resolution mechanisms and joint decision making structures that are equitable and democratic. Further, co-governance system that is capable of incorporating multiple knowledge systems is imperative, as the vitality of traditional knowledge and biodiversity at the community level is entirely dependent on the ability of traditional knowledge systems to continue to evolve over time.

Finally, co-management theorists propose that these regimes are capable of drawing upon community resource management capacities including time and place specific knowledge. As many indigenous communities are extremely rich in their own capacities to manage their knowledge and biodiversity it is logical that the state should play a supportive role in protecting and strengthening community governance mechanisms, while helping to create a system to apply community governance mechanisms outside of the community, in order to minimize conflict between communities and at the same time to protect communities from external misappropriation of their resources.

Co-management theory also addresses some weaknesses of this approach. A major criticism is that in a worst-case scenario the partnership arrangement may be coercive in nature and the risk that the rhetoric of co-management may be used to justify a redistribution of responsibility without any real redistribution of power and resources. Therefore, in order for a co-management approach to succeed in the management of traditional knowledge and biodiversity, it will require political willingness and good intentions on the part of the state to continue to provide the necessary logistical, financial and technical and institutional support for community efforts.

Would a co-management system be beneficial for state actors?

The theory of co-management proposes that it is most advantageous for state's to enter into co-management arrangements when a number of factors exist including: that

local actors historically held rights to the resources in question; that local interests rely upon the successful management of resources; that controversial decisions will need to be made; when resource conservation necessitates the linking of various knowledge systems, cosmologies and values; and finally when adequate time and resources are available to design, facilitate and implement an effective co-management system. Many of these factors are present in the current situation in Peru. Traditional governance mechanisms have been responsible for the successful management and conservation of the resources in question, and rely heavily on the well being of these resources for their very survival. The recent changes in biodiversity governance in Peru have been extremely controversial, and ongoing decisions regarding bio prospecting and the implementation of this law are likely to result in a very diverse, and highly emotional range of opinions amongst stakeholders. Undoubtedly, the successful management of biodiversity and traditional knowledge will require the linking of various knowledge systems, cosmologies and values, between communities and the state, as well as amongst communities and individual community members holding a diverse range of beliefs. While many of these factors are present, a major limitation, even if the Peruvian government is willing to enter into a co-management arrangement, is likely to be the adequate time and resources to design, facilitate and implement such a system. Indigenous peoples were left out of the design for the law that stands now, largely as a result of severely limited time and funds available to create this regime. The adaptation and implementation of a successful system will require an increased source of funding.

Would a community based co-management system be advantageous for communities?

Co-management theory proposes that community participation is most advantageous when: powerful actors are encroaching on resources traditionally held by communities; external factors undermine traditional governance mechanisms; and when local governance mechanisms are no longer able to manage resources alone. These factors are very relevant to the current situation facing the communities of the Potato Park. These communities are facing new threats from outside the community including biopiracy, which are beyond the scope of their customary governance mechanisms. While these mechanisms are still effective and relevant for the conservation and maintenance of these resources, it is quite difficult for these communities to enforce their local governance mechanisms outside of the community without external support.

Community Based Co-Management Approach: Capitalizing on the Strengths and Minimizing the Weaknesses of Local and National Governance Mechanisms

The current national ABS system, namely the Law for the Protection of Traditional Knowledge in Peru, has both strengths and weaknesses, which in theory, could be improved by entering into meaningful institutional partnerships with community authorities. For example, while the current approach provides mechanisms intended to prevent biopiracy and to share benefits with local communities, its implementation may undermine local decision-making authority. On the other hand, it is also evident that community based approaches functioning independently are also likely to result in

significant strengths and weaknesses. For example, the customary governance mechanisms of the Potato Park are critical to providing a holistic conservation approach based on the customary governance mechanisms of these communities, but at the same time these mechanisms are relatively ineffective for enforcing compliance of outsiders and solving disputes with other communities sharing similar resources. Therefore a community based co-management approach is advocated in order to initiate an ongoing problem solving process drawing on the relative strengths and minimizing the relative weaknesses of the two tiers of governance.

More specifically, the “co-management as a network” framework is a particularly useful conceptualization for thinking about how the ABS system in Peru can bring together a wide range of actors to contribute in various capacities to the governance of traditional knowledge and agro-biodiversity in Peru. While this approach does focus primarily on the strengthening of state-community partnerships, and shifting power and principle decision-making authority to communities, it also provides intellectual space for considering the importance of other relevant actors. In this case, it is imperative to recognize diversities and complexities within the state, as well as within and between local level actors. Any successful attempt at co-management of agro-biodiversity and traditional knowledge in Peru will require a nuanced understanding of the relationship between a wide variety of state and local actors, including formal centralized state bodies, local and regional governments, indigenous organizations, grassroots NGOs, and the diverse range of community authorities across Peru.

Is a community-based co-management system feasible?

A quote by Berkes provided in the second chapter of this paper is particularly useful for assessing the appropriateness of implementing a community based co-management approach:

Assuming that co-management is desirable and there is a need for it, and assuming that devolution of management power is possible and feasible, then four key conditions seem to define successful co-management: Are there appropriate institutions, both local and governmental? Is there trust between the actors? Is there legal protection of local rights? Are there incentives for local communities to conserve their resources? (Berkes, 1997).

Findings of this study suggest that a successful community based co-management system would necessitate the creation of new institutions both at the local and national level. This study suggests that the current institutions are not appropriate mechanisms for representing indigenous peoples and facilitating collaborative decision making, and that new institutional and organizational structures will be needed to truly represent indigenous peoples, to minimize inter-community conflict and to facilitate collective and meaningful participatory involvement of indigenous peoples. The issue of trust between actors is also of critical importance to the feasibility of a co-management system in Peru. While it is evident that there is still a great deal of mistrust between formal centralized state institutions and indigenous communities, evidence suggests that local and regional governments are perceived in a much more positive light. A successful co-management approach may also help to mend relations between the state and communities. While the law for Protection of Traditional Knowledge does provide some allowance for communities to manage their knowledge and agro-biodiversity, it needs to go farther allowing communities to take on active and meaningful decision-making roles based on

their customary governance institutions. Addressing Berkes final factor predicting the feasibility of co-management, this study suggests that the communities of the Potato Park have extremely strong incentives to conserve not only their traditional knowledge and agro-biodiversity. So while there are likely to be significant challenges in the creation and implementation of a community-based co-management regime including allocating time and resources, ensuring political willingness, creation of appropriate institutions linking local and national actors, and building trust amongst actors, it is promising that many of the factors predicting the usefulness and feasibility of a community based co-management regime are present in the current situation. As reviewed above, there are many reasons for both state and local actors to justify entering into such a partnership and if implemented in a meaningful and effective fashion a successful co-management regime that starts from the ground up decentralizing decision making authority to communities, may offer real solutions to both local and national interests.

Regardless of the nature of the management regime governing traditional knowledge and genetic resources, ongoing negotiations and decisions must recognize and make use of the concept of biocultural heritage. Future international and national thinking on Access and Benefit Sharing must acknowledge the fact that these resources cannot be viewed as independent and neutral commodities to be bought and sold in the marketplace, as the integrity of these resources will be lost if conservation efforts are separated from the holistic conservation of the landscapes, worldviews, and conservation practices in which they were developed and maintained for thousands of years. Access and benefit sharing regimes must expand their focus to the holistic protection of not only the

traditional knowledge and genetic resources of indigenous communities but also expanding this vision to include a deep respect for the “knowledge, innovations, and practices of indigenous peoples and local communities which are collectively held and inextricably linked to resources and territories; including the variety of genes, varieties, species and ecosystems; cultural and spiritual values; and customary laws shaped within the socio-ecological context of communities” (Swiderska, 2006). A reframing of Access and Benefit Sharing regimes to accommodate the concept of Biocultural Heritage is central for the ability of these regimes to contribute to the goals of sustainable development as defined in this thesis: a complex and multi-faceted concept including conservation of environmental resources, poverty reduction, and democratization of decision-making.

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Appendix A: Standardized Interview Guide

Semi Structured, Open-Ended Interview:

Interview Questions:

1. What is the mandate of your organization?
2. What is the mandate of your particular program?
3. What is your role in the organization?
4. Is your organization a stakeholder in the development of a national ABS system? Why or why not?
5. Is your organization a stakeholder in the development of law, policy and/or programs or projects for the protection of traditional knowledge specifically?
6. What are the main interests/ priorities of your organization with regard to the development and implementation of the Peru's national ABS legal framework?
7. What are the main interests /priorities of your organization with regard to the protection of traditional knowledge?
8. To what extent is access to and use of traditional knowledge and associated biological and genetic resources are governed by the customary laws and practices of indigenous and local communities?
9. Indigenous peoples and local communities have argued that protection of traditional knowledge should be carried out in accordance with customary law? What do you feel about this claim? Is it achievable?
10. In your view, what is the relationship between the national ABS regime, and law for the protection of traditional knowledge, and customary governance of genetic resources and traditional knowledge?
11. To what extent does or might the current legal framework recognise and respect customary law?
12. How might the current legal framework threaten customary law practices?
13. What potential exists for developing a national framework that harmonizes the customary governance mechanisms of indigenous communities with the national ABS framework?
14. Are you aware of any experiences involving collaboration between traditional or local community authorities and national authorities in the application of customary law and authority in cases of resource management or otherwise, which might?
15. What are the main constraints to harmonizing local and national governance mechanisms?
16. From the perspective of your organization, what measures might be taken in order to ensure that community governance mechanisms be recognised, respected and/or strengthened by the national ABS framework? Does your organisation have any responsibility in this area? Why or why not? What responsibility lies with the government, communities or other stakeholders in this area.
17. In the long term what form of protection should be given to traditional knowledge and how might this be implemented?

Appendix B: Text from Power-point Presentation with the Barefoot Technicians

Slide 1

Welcome and Thank you for Coming

My name is Emily Taylor

I am a student from Saint Mary's University in Canada and I work for the International Development Research Centre in Canada

Slide 2

Today's Schedule

Introduction to my research

Ask permission to see if all people here today are willing to participate in today's discussion

Discussion of issues related to the Potato Park's governance of Traditional Knowledge and Genetic Diversity

Planning for the General Assembly next week

Slide 3

Multi-Level Governance of Traditional Knowledge and Genetic Resources in Peru

Understanding the Compatibility of the National Law for the Protection of Traditional Knowledge, and the Local Governance Mechanisms of the Potato Park

Multi-tiered Governance of Agro- Biodiversity

Slide 4

How will changes in the national governance of traditional knowledge and genetic resources impact the ways in which communities in Peru are currently using, maintaining, conserving and making decisions regarding their resources?

Slide 5

Why is it important to Understand the Perspective of the Potato Park?

Because this law will impact the way in which traditional knowledge and genetic resources are governed in Peru.

Because indigenous communities had very little participation in the development of this law

Slide 6

-Because although this law has been passed, it has not been implemented and it will continue to change and adapt. I hope to share the results of my research with the potato park with national policy makers in Lima, as well as at international conferences.

Because the Potato Park, provides a very important example for the world. It demonstrates how communities can use traditional laws and principles to govern their genetic resources and traditional knowledge. In my opinion national and international laws must respect these traditional laws and practices.

Slide 7

Law for the Protection of Traditional Knowledge (1996)

I will be exploring specifically how this law will impact the ways in which communities are currently governing their own traditional knowledge and resources.

Slide 8

Introduction to Law for the Protection of Traditional Knowledge

First national law protecting Traditional Knowledge in the world. It applies specifically to traditional knowledge applicable to genetic resources.

Applies western principles and tools, for protecting traditional knowledge (eg. registers, licenses, trade secrets)

Proponents of this law, see it as an ongoing process, that will need to be adjusted and improved during its implementation process.

Slide 9

Primary Objectives of the Law for the Protection of Traditional Knowledge

Ensuring a degree of control by communities over the use of their knowledge and receive benefits from outside users

Preventing biopiracy through the use of the patent system to protect traditional knowledge

Slide 10

General Principles

Prior Informed Consent- outsiders interested in using TK, must obtain PIC from **representative organizations**

Benefit Sharing- **representative organizations** will negotiate payments for outsiders use of TK. A percentage of the Royalty rates will be deposited into a Fund for the Development of Indigenous Peoples

The law says that the Fund will be administered by the representative organizations and will be used to improve the living conditions of indigenous communities in Peru. The Fund will receive resources from the state, international donor organizations, and from benefits received from the exchange of traditional knowledge and genetic resources.

Slide 11

Proposed Tools for the Protection of Traditional Knowledge

Licenses (Contracts)- negotiated by representative organizations and registered with INDECOPI, these licenses establish the conditions under which traditional knowledge may be accessed and utilized by outsiders

Registers- provide defensive protection for communities to ensure preservation and control over their traditional knowledge

Slide 12

How will the registers Function?

-They will provide defensive protection to prevent wrongful patents. The registers will be used by INDECOPI to prove prior art, or prior existence of knowledge and resources.

- The registers will aid in the preservation and maintenance of collective knowledge of communities.

Slide 13

3 Types of Registers

-National Public Register- This register will be developed and implemented by INDECOPI and will contain traditional knowledge already in the public domain and will be used to provide defensive protection against biopiracy.

-National Confidential Register- This register will also be developed and implemented by INDECOPI and will contain that information which communities would like to remain private. It will also be used to provide defensive protection.

-Local Registers- Local Registers based on traditional customs and laws.

Slide 14

How will communities participate?

According to the law: Due to the collective nature of indigenous communities, indigenous peoples must exercise their rights through their **representative organizations**, which are structured in harmony with traditional forms of community organization.

Slide 15

My Research Question

How might this law support or contradict community governance mechanisms for the protection of genetic resources and traditional knowledge of the potato park?

Slide 16

Questions for Discussion:

What does it mean to you, to protect the traditional knowledge and genetic resources of the Potato Park?

Slide 17

Questions for Discussion

What does it mean to benefit from the use of traditional knowledge and genetic resources?

Slide 18

What sort of benefits would be expected when sharing resources with outsiders?

How should this agreement be negotiated

Slide 19

Questions for Discussion:

Does the Potato Park have a representative organization?

How are members of the potato park represented in national politics?

Slide 20

Questions for Discussion:

Who should represent members of the potato park in negotiations regarding outsider's use of their traditional knowledge and genetic resources?

Slide 21

Question for Discussion:

If another community entered into an agreement with an outsider, granting access to traditional knowledge and genetic resources that are also contained in the potato park communities: How should conflicts be resolved?

Slide 22

Questions for Discussion:

Is it important that local customary governance mechanisms are protected by national laws in Peru?

Slide 23

Question for Discussion:

What is the best way to ensure that local customary governance mechanisms are protected?

Slide 24

General Assembly- What I would like to ask community members

What does it mean to the community to protect traditional knowledge?

What does it mean to the community to protect genetic resources?

How should the community decide whether to share traditional knowledge and genetic resources with outsiders?

What sort of benefits should the community receive?

Is it necessary for national laws to protect the Potato Park's traditional governance mechanisms?

How can communities across Peru work together, to make decisions regarding their collective knowledge and resources?

Appendix C: Consent Form

Consent Form
Researcher: Emily Taylor
emily_taylor7@hotmail.com
International Development Studies, Saint Mary's University
Halifax, Nova Scotia, B3H 3C3

Dear Participant,

For my Master's thesis research I am conducting a study on Access and Benefit Sharing Legislation in Peru. Specifically, I am interested in understanding from many perspectives if and how traditional community governance mechanisms can be protected by National Access and Benefit Sharing Legislation.

Beyond identifying the opportunities and constraints, research will focus on gathering the perspectives of multiple stakeholders on why constraints exist. The overall objective of this study is to provide some possible recommendations on how the compatibility of national ABS policies and local sui generis legislation, could be strengthened, recognizing both national government priorities and the interests of indigenous communities.

I hope to conduct interviews with individuals from various stakeholder groups in Peru who have been involved in ABS policy making both at the National level and at the community level.

For those who agree to participate in this study, an interview will be arranged at a time and place of the interviewees' convenience. A set of questions will be asked, to try to understand the perspective of that individual, as well as the perspective of that individual's organization or community. When necessary a translator will aid in the interview process.

Participation in this study is entirely optional and voluntary. You may opt out of the study at any points. Participants should only answer those questions that they feel comfortable answering. If you agree to participate both the translator and myself promise that your identity and responses to the questions will remain entirely confidential. The final report of my research will not contain any identifying information of individual participants.

The final report will be made available upon request. *If you agree to take part in this study, according to the conditions as stated above please sign and date at the bottom of the page.*

Name: _____

Signature: _____

Date: _____

PODER LEGISLATIVO CONGRESO DE LA REPÚBLICA
LEY N° 27811

EL PRESIDENTE DE LA REPÚBLICA

POR CUANTO:

La Comisión Permanente del Congreso de la República ha dado la Ley siguiente:

LA COMISIÓN PERMANENTE DEL CONGRESO DE LA REPÚBLICA;

Ha dado la Ley siguiente:

**LEY QUE ESTABLECE EL RÉGIMEN DE PROTECCIÓN DE LOS CONOCIMIENTOS
COLECTIVOS DE LOS PUEBLOS INDÍGENAS VINCULADOS A LOS RECURSOS
BIOLÓGICOS**

TÍTULO I
**DEL RECONOCIMIENTO DE DERECHOS DE LOS PUEBLOS INDÍGENAS SOBRE SUS
CONOCIMIENTOS COLECTIVOS**

Artículo 1°.- Reconocimiento de derechos

El Estado peruano reconoce el derecho y la facultad de los pueblos y comunidades indígenas de decidir sobre sus conocimientos colectivos.

TÍTULO II
DE LAS DEFINICIONES

Artículo 2°.- Definiciones

Para los efectos del presente dispositivo se entenderá por:

a) Pueblos indígenas.- Son pueblos originarios que tienen derechos anteriores a la formación del Estado peruano, mantienen una cultura propia, un espacio territorial y se autorreconocen como tales. En éstos se incluye a los pueblos en aislamiento voluntario o no contactados, así como a las comunidades campesinas y nativas.

La denominación "indígenas" comprende y puede emplearse como sinónimo de "originarios", "tradicionales", "étnicos", "ancestrales", "nativos" u otros vocablos.

b) Conocimiento colectivo.- Conocimiento acumulado y transgeneracional desarrollado por los pueblos y comunidades indígenas respecto a las propiedades, usos y características de la diversidad biológica. El componente intangible contemplado en la Decisión 391 de la Comisión del Acuerdo de Cartagena incluye este tipo de conocimiento colectivo.

c) Consentimiento informado previo.- Autorización otorgada, dentro del marco del presente régimen de protección, por la organización representativa de los pueblos indígenas poseedores de un conocimiento colectivo, de conformidad con las normas por ellos reconocidas, para la realización de determinada actividad que implique acceder y utilizar dicho conocimiento colectivo, previo suministro de suficiente información relativa a los propósitos, riesgos o implicancias de dicha actividad, incluyendo los eventuales usos del conocimiento y, de ser el caso, el valor del mismo.

d) Contrato de licencia de uso de conocimientos colectivos.- Acuerdo expreso celebrado entre la organización representativa de los pueblos indígenas poseedores de un conocimiento colectivo y un tercero que incorpora términos y condiciones sobre el uso de dicho conocimiento colectivo. Estos contratos pueden constituir un anexo al contrato mencionado en el Artículo 34° de la Decisión 391 de

la Comisión del Acuerdo de Cartagena que establece un Régimen Común sobre acceso a los recursos genéticos.

e) Recursos biológicos.- Recursos genéticos, organismos o partes de ellos, poblaciones, o cualquier otro tipo del componente biótico de los ecosistemas de valor o utilidad real o potencial para la humanidad.

TÍTULO III DEL ÁMBITO DE PROTECCIÓN

Artículo 3º.- Ámbito de protección de la norma

El presente dispositivo establece un régimen especial de protección de los conocimientos colectivos de los pueblos indígenas vinculados a los recursos biológicos.

Artículo 4º.- Excepciones al régimen

El presente régimen no afectará el intercambio tradicional entre pueblos indígenas de los conocimientos colectivos protegidos bajo este régimen.

TÍTULO IV DE LOS OBJETIVOS

Artículo 5º.- Objetivos del régimen

Son objetivos del presente régimen:

- a) Promover el respeto, la protección, la preservación, la aplicación más amplia y el desarrollo de los conocimientos colectivos de los pueblos indígenas.
- b) Promover la distribución justa y equitativa de los beneficios derivados de la utilización de estos conocimientos colectivos.
- c) Promover el uso de estos conocimientos en beneficio de los pueblos indígenas y de la humanidad.
- d) Garantizar que el uso de los conocimientos colectivos se realice con el consentimiento informado previo de los pueblos indígenas.
- e) Promover el fortalecimiento y el desarrollo de las capacidades de los pueblos indígenas y de los mecanismos tradicionalmente empleados por ellos para compartir y distribuir beneficios generados colectivamente, en el marco del presente régimen.
- f) Evitar que se concedan patentes a invenciones obtenidas o desarrolladas a partir de conocimientos colectivos de los pueblos indígenas del Perú, sin que se tomen en cuenta estos conocimientos como antecedentes en el examen de novedad y nivel inventivo de dichas invenciones.

TÍTULO V DE LOS PRINCIPIOS GENERALES

Artículo 6º.- Condiciones para el acceso a los conocimientos colectivos

Los interesados en acceder a los conocimientos colectivos con fines de aplicación científica, comercial e industrial deberán solicitar el consentimiento informado previo de las organizaciones representativas de los pueblos indígenas que posean un conocimiento colectivo.

La organización representativa de los pueblos indígenas, cuyo consentimiento informado previo haya sido solicitado, deberá informar que está entrando en una negociación al mayor número posible de pueblos indígenas poseedores del conocimiento y tomar en cuenta sus intereses e inquietudes, en particular aquellas vinculadas con sus valores espirituales o creencias religiosas.

La información que proporcione se limitará al recurso biológico sobre el cual versa el conocimiento colectivo objeto de la negociación en curso, en salvaguarda de los intereses de la contraparte en mantener

secretos los detalles de la negociación.

Artículo 7°.- Acceso con fines de aplicación comercial o industrial

En caso de acceso con fines de aplicación comercial o industrial, se deberá suscribir una licencia donde se prevean condiciones para una adecuada retribución por dicho acceso y se garantice una distribución equitativa de los beneficios derivados del mismo.

Artículo 8°.- Porcentaje destinado al Fondo para el Desarrollo de los Pueblos Indígenas

Se destinará un porcentaje no menor al 10% del valor de las ventas brutas, antes de impuestos, resultantes de la comercialización de los productos desarrollados a partir de un conocimiento colectivo al Fondo para el Desarrollo de los Pueblos

Indígenas a que se refieren los Artículos 37° y siguientes.

Las partes podrán acordar un porcentaje mayor, en función del grado de utilización o incorporación directa de dichos conocimientos en el producto final resultante, el grado de aporte de dichos conocimientos a la reducción de los costos de investigación y desarrollo de los productos derivados, entre otros.

Artículo 9°.- Rol de las generaciones presentes

Las generaciones presentes de los pueblos indígenas preservan, desarrollan y administran sus conocimientos colectivos en beneficio propio y de las generaciones futuras.

Artículo 10°.- Naturaleza colectiva de los conocimientos

Los conocimientos colectivos protegidos bajo este régimen son aquellos que pertenecen a un pueblo indígena y no a individuos determinados que formen parte de dicho pueblo. Pueden pertenecer a varios pueblos indígenas.

Estos derechos son independientes de aquellos que puedan generarse al interior de los pueblos indígenas y para cuyo efecto de distribución de beneficios podrán apelar a sus sistemas tradicionales.

Artículo 11°.- Conocimientos colectivos y patrimonio cultural

Los conocimientos colectivos forman parte del patrimonio cultural de los pueblos indígenas.

Artículo 12°.- Inalienabilidad e imprescriptibilidad de los derechos

Por ser parte de su patrimonio cultural, los derechos de los pueblos indígenas sobre sus conocimientos colectivos son inalienables e imprescriptibles.

Artículo 13°.- Conocimientos colectivos que están en el dominio público

A efectos del presente régimen, se entenderá que un conocimiento colectivo se encuentra en el dominio público cuando haya sido accesible a personas ajenas a los pueblos indígenas, a través de medios de comunicación masiva, tales como publicaciones, o cuando se refiera a propiedades, usos o características de un recurso biológico que sean conocidos masivamente fuera del ámbito de los pueblos y comunidades indígenas.

En los casos en que estos conocimientos hayan entrado en el dominio público en los últimos 20 años, se destinará un porcentaje del valor de las ventas brutas, antes de impuestos, resultantes de la comercialización de los productos

desarrollados a partir de estos conocimientos colectivos, al Fondo para el Desarrollo de los Pueblos Indígenas a que se refieren los Artículos 37° y siguientes.

Artículo 14°.- Representantes de los pueblos indígenas

Para efectos de este régimen, los pueblos indígenas deberán ser representados a través de sus organizaciones representativas, respetando las formas tradicionales de organización de los pueblos indígenas.

**TÍTULO VI
DE LOS REGISTROS DE CONOCIMIENTOS
COLECTIVOS DE LOS PUEBLOS INDÍGENAS**

Artículo 15°.- Registros de Conocimientos Colectivos de los Pueblos Indígenas

Los conocimientos colectivos de los pueblos indígenas podrán ser inscritos en tres tipos de registros:

- a) Registro Nacional Público de Conocimientos Colectivos de los Pueblos Indígenas.
- b) Registro Nacional Confidencial de Conocimientos Colectivos de los Pueblos Indígenas.
- c) Registros Locales de Conocimientos Colectivos de los Pueblos indígenas.

El Registro Nacional Público de Conocimientos Colectivos

de los Pueblos Indígenas y el Registro Nacional Confidencial de Conocimientos Colectivos de los Pueblos Indígenas estarán a cargo del Indecopi.

Artículo 16°.- Objeto de los Registros de Conocimientos Colectivos

Los Registros de Conocimientos Colectivos de los Pueblos Indígenas tienen por objeto, según sea el caso:

- a) Preservar y salvaguardar los conocimientos colectivos de los pueblos indígenas y sus derechos sobre ellos; y
- b) Proveer al Indecopi de información que le permita la defensa de los intereses de los pueblos indígenas, con relación a sus conocimientos colectivos.

Artículo 17°.- Carácter del Registro Nacional Público de Conocimientos Colectivos de los Pueblos Indígenas

El Registro Nacional Público de Conocimientos Colectivos de los Pueblos Indígenas contendrá los conocimientos colectivos que se encuentran en el dominio público.

El Indecopi deberá registrar los conocimientos colectivos que están en el dominio público en el Registro Nacional Público de Conocimientos Colectivos de los Pueblos Indígenas.

Artículo 18°.- Carácter del Registro Nacional Confidencial de Conocimientos Colectivos de los Pueblos Indígenas

El Registro Nacional Confidencial de Conocimientos Colectivos de los Pueblos Indígenas no podrá ser consultado por terceros.

Artículo 19°.- Registro a solicitud de los pueblos indígenas

Cada pueblo, a través de su organización representativa, podrá inscribir ante el Indecopi, en el Registro Nacional Público o en el Registro Nacional Confidencial, los conocimientos colectivos que posea.

Artículo 20°.- Solicitudes de registro de conocimientos colectivos

Las solicitudes de registro de conocimientos colectivos de los pueblos indígenas se presentarán ante el Indecopi, a través de sus organizaciones representativas, y deberán contener:

- a) Identificación del pueblo indígena que solicita el registro de sus conocimientos;
- b) Identificación del representante;
- c) Indicación del recurso biológico sobre el cual versa el conocimiento colectivo, pudiendo utilizarse el nombre indígena;
- d) Indicación del uso o usos que se dan al recurso biológico en cuestión;
- e) Descripción clara y completa del conocimiento colectivo objeto de registro; y
- f) Acta en la que figura el acuerdo de registrar el conocimiento por parte del pueblo indígena.

La solicitud deberá ser acompañada de una muestra del recurso biológico sobre el cual versa el conocimiento colectivo objeto de registro. En aquellos casos en que la muestra sea de difícil transporte o manipulación, el pueblo indígena que solicita el registro podrá requerir al Indecopi que le exima de la presentación de dicha muestra y le permita presentar, en su lugar, fotografías en las que se puedan apreciar las características del recurso biológico sobre el cual versa el conocimiento colectivo. Dicha muestra, o en su caso, dichas fotografías, deberán permitir al Indecopi identificar de manera fehaciente el recurso biológico en cuestión y hacer constar en el expediente el nombre científico del mismo.

Artículo 21°.- Trámite de la solicitud

El Indecopi verificará, en el plazo de diez (10) días de presentada la solicitud, que la misma consigne todos los datos especificados en el artículo anterior.

En caso de que se haya producido alguna omisión, notificará al pueblo indígena que solicita el registro a efectos de que complete la solicitud, dentro del plazo de seis (6) meses, prorrogables a su solicitud, bajo apercibimiento de declarar el abandono de la solicitud.

Una vez que el Indecopi haya verificado que la solicitud consigne todos los datos especificados en el artículo anterior, procederá a registrar el conocimiento colectivo en cuestión.

Artículo 22°.- Envío de representantes del Indecopi

Para facilitar el registro de conocimientos colectivos de los pueblos indígenas, el Indecopi podrá enviar representantes debidamente acreditados a los diferentes pueblos indígenas con el fin de recabar la información necesaria para dar trámite a las solicitudes de registro que deseen presentar.

Artículo 23°.- Obligación del Indecopi de enviar la información contenida en el Registro Nacional Público a las principales Oficinas de Patentes del mundo

Con el fin de objetar solicitudes de patente en trámite, cuestionar patentes concedidas o influir en general en el otorgamiento de patentes relacionadas con productos o procesos obtenidos o desarrollados a partir de un conocimiento colectivo, el Indecopi deberá enviar la información contenida en el Registro Nacional Público, a las principales Oficinas de Patentes del mundo, a efectos de que sea tomada en cuenta como antecedente en el examen de novedad y nivel inventivo de las solicitudes de patente.

Artículo 24°.- Registros Locales de Conocimientos Colectivos de los Pueblos Indígenas

Los pueblos indígenas podrán organizar Registros Locales de Conocimientos Colectivos, de conformidad con sus usos y costumbres. El Indecopi prestará asistencia técnica para la organización de estos registros, a solicitud de los pueblos indígenas.

**TÍTULO VII
DE LAS LICENCIAS**

Artículo 25°.- Inscripción obligatoria de contratos de licencia

Los contratos de licencia deberán inscribirse en un registro que para estos efectos llevará el Indecopi.

Artículo 26°.- Obligatoriedad de forma escrita de los contratos de licencia

La organización representativa de los pueblos indígenas que poseen un conocimiento colectivo podrá otorgar a terceras personas licencias de uso de dicho conocimiento colectivo sólo mediante contrato escrito, en idioma nativo y castellano, y por un plazo renovable no menor de un año ni mayor de 3 años.

Artículo 27°.- Contenido del contrato de licencia

A efectos del presente régimen, los contratos deberán contener por lo menos las siguientes cláusulas:

- a) Identificación de las partes.
- b) Descripción del conocimiento colectivo objeto del contrato.
- c) El establecimiento de las compensaciones que recibirán los pueblos indígenas por el uso de su conocimiento colectivo. Estas compensaciones incluirán un pago inicial monetario u otro equivalente dirigido a su desarrollo sostenible; y un porcentaje no menor del 5% del valor de las ventas brutas, antes de impuestos, resultantes de la comercialización de los productos desarrollados directa e indirectamente a partir de dicho conocimiento colectivo, de ser el caso.
- d) El suministro de suficiente información relativa a los propósitos, riesgos o implicancias de dicha actividad, incluyendo los eventuales usos del conocimiento colectivo y, de ser el caso, el valor del mismo.
- e) La obligación del licenciatario de informar periódicamente, en términos generales, al licenciante acerca de los avances en la investigación, industrialización y comercialización de los productos desarrollados a partir de los conocimientos colectivos objeto de la licencia.

f) La obligación del licenciatario de contribuir al fortalecimiento de las capacidades de los pueblos indígenas en relación con sus conocimientos colectivos vinculados a los recursos biológicos.

En caso de que en el contrato se pacte un deber de reserva, el mismo deberá constar expresamente. El Indecopi no registrará los contratos que no se ajusten a lo establecido en este artículo.

Artículo 28°.- Solicitudes de registro de contrato de licencia. Confidencialidad del contrato

Las solicitudes de registro de un contrato de licencia que se presenten ante el Indecopi deberán contener:

- a) Identificación de los pueblos indígenas que son parte en el contrato y de sus representantes;
- b) Identificación de las demás partes en el contrato y de sus representantes.
- c) Copia del contrato; y
- d) Acta en la que figura el acuerdo de celebrar el contrato de licencia por parte de los pueblos indígenas que son parte en el contrato.

El contrato no podrá ser consultado por terceros, salvo con autorización expresa de ambas partes.

Artículo 29°.- Trámite de la solicitud

El Indecopi verificará, en el plazo de diez (10) días de presentada la solicitud, que la solicitud consigne todos los datos especificados en el artículo anterior.

En caso de que se haya producido alguna omisión, notificará a quien solicita el registro a efectos de que complete la solicitud, dentro del plazo de seis (6) meses, prorrogables a su solicitud, bajo apercibimiento de declarar el abandono de la solicitud.

Artículo 30°.- Verificación del contenido del contrato

A efectos de inscribir una licencia, el Indecopi, dentro del plazo de treinta (30) días de presentada la solicitud, verificará si se cumplen las cláusulas mencionadas en el Artículo 27°.

Artículo 31°.- Información adicional acerca del impacto ambiental

El Indecopi, a solicitud de parte, o de oficio, solicitará información adicional, en aquellos casos en que considere que exista el riesgo de afectar el equilibrio ambiental en los territorios que habitan los pueblos indígenas como consecuencia del contrato cuyo registro se solicita. El registro del contrato será denegado de verificarse dicho riesgo y en caso de que las partes no se comprometan a tomar las medidas necesarias para evitarlo, a satisfacción de la Autoridad Nacional Competente en materia de medio ambiente.

Artículo 32°.- Alcance de las licencias de uso

La licencia de uso de conocimiento colectivo de un pueblo indígena no impedirá a otros utilizarlo ni otorgar licencias sobre este mismo conocimiento. Esta licencia tampoco afectará el derecho de las generaciones presentes y futuras de seguir utilizando y desarrollando conocimientos colectivos.

Artículo 33°.- Prohibición de conceder sublicencias

Sólo se podrán conceder sublicencias con autorización expresa de la organización representativa de los pueblos indígenas que otorga la licencia.

TÍTULO VIII

DE LA CANCELACIÓN DE REGISTRO

Artículo 34°.- Causales de cancelación de registro

El Indecopi podrá cancelar, de oficio o a solicitud de parte, un registro de conocimiento colectivo o de licencia de uso, previa audiencia de las partes interesadas, siempre que:

- a) Haya sido concedido en contravención de cualquiera de las disposiciones del presente régimen.
- b) Se compruebe que los datos esenciales contenidos en la solicitud son falsos o inexactos.

Las acciones de cancelación que se deriven del presente artículo podrán iniciarse en cualquier momento.

Artículo 35°.- Solicitud de cancelación de registro

La solicitud de cancelación de registro deberá consignar o adjuntar, según el caso, lo siguiente:

- a) Identificación de quien solicita la cancelación;
- b) Identificación del representante o apoderado, de ser el caso;
- c) Registro materia de la cancelación;
- d) Indicación del fundamento legal de la acción;
- e) Pruebas que acrediten las causales de cancelación invocadas;
- f) Domicilio donde se notificará al titular del registro cuya cancelación se solicita;
- g) En su caso, copia de los poderes que fueren necesarios; y,
- h) Copias de la solicitud y sus recaudos para el titular del registro.

Artículo 36°.- Trámite de la solicitud

La solicitud de cancelación se trasladará al titular del registro, a quien se le concederá un plazo de treinta (30) días para hacer su descargo. Luego de este plazo, el Indecopi resolverá con o sin la contestación respectiva.

TÍTULO IX DEL FONDO PARA EL DESARROLLO DE LOS PUEBLOS INDÍGENAS

Artículo 37°.- Objeto del Fondo para el Desarrollo de los Pueblos Indígenas

Créase el Fondo para el Desarrollo de los Pueblos Indígenas con el objeto de contribuir al desarrollo integral de los pueblos indígenas a través del financiamiento de proyectos y otras actividades. Este Fondo gozará de autonomía técnica, económica, administrativa y financiera.

Artículo 38°.- Acceso a los recursos del Fondo para el Desarrollo de los Pueblos y Comunidades Indígenas

Los pueblos indígenas tienen derecho a acceder a los recursos del Fondo para el Desarrollo de los Pueblos Indígenas a través de sus organizaciones representativas y por medio de proyectos de desarrollo, previa evaluación y aprobación del Comité Administrador.

Artículo 39°.- Administración del Fondo para el Desarrollo de los Pueblos Indígenas

El Fondo para el Desarrollo de los Pueblos Indígenas será administrado por 5 representantes de organizaciones representativas de los pueblos indígenas, y 2 representantes de la Comisión Nacional de los Pueblos Andinos, Amazónicos y Afroperuanos, los mismos que conformarán el Comité Administrador. Este Comité deberá utilizar, en la medida de lo posible, los mecanismos tradicionalmente empleados -por los pueblos indígenas- para compartir y distribuir beneficios generados colectivamente. El Comité Administrador deberá informar trimestralmente a las organizaciones representativas de los pueblos indígenas sobre los recursos recibidos.

Artículo 40°.- Obligación de presentar declaraciones juradas de los miembros del Comité Administrador

Los miembros del Comité Administrador, al momento de asumir sus cargos y anualmente, deberán presentar a la Comisión Nacional de los Pueblos Andinos, Amazónicos y Afroperuanos, una declaración jurada de bienes y rentas.

Artículo 41°.- Recursos del Fondo para el Desarrollo de los Pueblos Indígenas

Los recursos del Fondo para el Desarrollo de los Pueblos Indígenas se obtendrán del Presupuesto Público, de la cooperación técnica internacional, de donaciones, del porcentaje de los beneficios económicos a que se refieren los Artículos 8° y 13°, de las multas a que se refiere el Artículo 62°, así como de otros aportes.

TÍTULO X

DE LA PROTECCIÓN QUE CONFIERE ESTE RÉGIMEN

Artículo 42°.- Derechos de los pueblos indígenas que poseen conocimientos colectivos

El pueblo indígena que posea un conocimiento colectivo estará protegido contra la revelación, adquisición o uso de tal conocimiento colectivo sin su consentimiento y de manera desleal, en la medida en que este conocimiento colectivo no se encuentre en el dominio público.

Asimismo, estará protegido contra la divulgación sin autorización en caso de que un tercero haya tenido acceso legítimamente al conocimiento colectivo pero con deber de reserva.

Artículo 43°.- Acciones por infracción de derechos de los pueblos indígenas

Los pueblos indígenas que poseen conocimientos colectivos pueden interponer acción por infracción contra quien infrinja los derechos que se precisan en el artículo anterior. También procede la acción por infracción cuando exista peligro

inminente de que estos derechos puedan ser infringidos.

Las acciones por infracción podrán iniciarse de oficio por decisión del Indecopi.

Artículo 44°.- Inversión de la carga de la prueba

En los casos en que se alegue una infracción a los derechos de un pueblo indígena poseedor de determinado conocimiento colectivo, la carga de la prueba recaerá en el denunciado.

Artículo 45°.- Acciones reivindicatorias e indemnizatorias

Las organizaciones representativas de los pueblos indígenas que poseen conocimientos colectivos podrán iniciar las acciones reivindicatorias e indemnizatorias que les confiera la legislación vigente contra el tercero que, de manera contraria a lo establecido en este régimen, hubiere utilizado, directa o indirectamente, dichos conocimientos colectivos.

Artículo 46°.- Solución de discrepancias entre pueblos indígenas

Para solucionar las discrepancias que pudieran generarse entre los pueblos indígenas en el marco de aplicación de este régimen, tales como aquéllas relacionadas con el cumplimiento por parte del pueblo indígena que ha negociado un contrato de licencia de uso de sus conocimientos colectivos de lo dispuesto en el segundo párrafo del Artículo 6° de la presente Ley, éstos podrán recurrir al derecho consuetudinario y a sus formas tradicionales de solución de conflictos, pudiendo contar con la mediación de una organización indígena superior.

TÍTULO XI DE LAS ACCIONES POR INFRACCIÓN

Artículo 47°.- Contenido de la denuncia

Los pueblos indígenas que deseen interponer una acción por infracción deberán presentar, a través de su organización representativa y ante la Oficina de Inventiones y Nuevas Tecnologías, una solicitud que deberá contener:

- a) La identificación de la organización representativa de los pueblos indígenas que interponen la acción y de sus representantes;
- b) La identificación y domicilio de la persona que estuviere ejecutando la infracción;
- c) La indicación del número de registro que ampara el derecho del pueblo indígena denunciante o, en su defecto, la descripción del conocimiento colectivo e indicación del recurso biológico sobre el cual versa el conocimiento colectivo materia de la acción;
- d) La descripción de los hechos constitutivos de la infracción, con indicación del lugar y de los medios utilizados o presumiblemente utilizados, y cualquier otra información relevante;
- e) La presentación u ofrecimiento de pruebas; y
- f) La indicación expresa de la medida cautelar que se solicita.

Artículo 48°.- Trámite de la denuncia

Una vez admitida a trámite la denuncia, se trasladará la misma al denunciado, a fin de que éste presente su descargo. El plazo para la presentación del descargo será de cinco (5) días contados desde la notificación, vencido el cual la autoridad administrativa del Indecopi declarará en rebeldía al denunciado que no lo hubiera presentado.

En el caso de los procedimientos de oficio, el plazo para la presentación de descargos correrá a partir de la fecha en la que la autoridad administrativa notifica al denunciado los hechos materia de investigación, así como la tipificación y descripción de la presunta infracción. La autoridad administrativa del Indecopi podrá realizar las inspecciones e investigaciones que considere necesarias, antes de enviar dicha comunicación. La notificación de la denuncia podrá efectuarse simultáneamente con la realización de una inspección, ya sea a pedido del denunciante o de oficio, en caso de que la autoridad administrativa del Indecopi considere que su actuación sea pertinente.

Artículo 49°.- Medidas cautelares

En cualquier etapa del procedimiento, de oficio o a pedido de parte, la autoridad administrativa del Indecopi podrá, dentro del ámbito de su correspondiente competencia, dictar una o varias de las siguientes medidas cautelares destinadas a asegurar el cumplimiento de la decisión definitiva:

- a) La cesación de los actos materia de la acción;
- b) El decomiso, el depósito o la inmovilización de los productos desarrollados a partir del conocimiento colectivo materia de la acción;
- c) La adopción de las medidas necesarias para que las autoridades aduaneras impidan el ingreso al país y la salida del país de los productos desarrollados a partir del conocimiento colectivo materia de la acción;
- d) El cierre temporal del establecimiento del denunciado; y
- e) Cualquier otra medida que tenga por objeto evitar que se produzca algún perjuicio derivado del acto materia de la acción o que tenga como finalidad la cesación de éste.

La autoridad administrativa del Indecopi podrá, de considerarlo pertinente, ordenar una medida cautelar distinta a la solicitada por la parte interesada.

El afectado por una medida cautelar podrá solicitar ante el Indecopi su modificación o levantamiento, si aporta nuevos elementos de juicio que lo justifiquen.

Artículo 50°.- Incumplimiento de la medida cautelar

Si el obligado a cumplir con una medida cautelar ordenada por la autoridad administrativa del Indecopi no lo hiciera, se le impondrá automáticamente una sanción de hasta el máximo de la multa permitida, para cuya graduación se tomará en cuenta los criterios que emplea la autoridad administrativa del Indecopi al emitir resoluciones finales. Dicha multa deberá ser pagada dentro del plazo de cinco (5) días de notificada, vencidos los cuales se ordenará su cobranza coactiva.

Si el obligado persiste en el incumplimiento, se podrá imponer una nueva multa duplicando sucesiva e ilimitadamente el monto de la última multa impuesta hasta que se cumpla la medida cautelar ordenada y sin perjuicio de poder denunciar al responsable ante el Ministerio Público para que éste inicie el proceso penal que corresponda. Las multas impuestas no impiden a la autoridad administrativa del Indecopi imponer una multa o sanción distinta al final del procedimiento.

Artículo 51°.- Conciliación

En cualquier estado del procedimiento, e incluso antes de admitirse a trámite la denuncia, la autoridad administrativa competente del Indecopi podrá citar a las partes a audiencia de conciliación. Si ambas partes arribaran a un acuerdo respecto de la denuncia, se levantará un acta donde conste el acuerdo respectivo, el mismo que tendrá efectos de transacción extrajudicial. En cualquier caso, la autoridad administrativa del Indecopi podrá continuar de oficio el procedimiento, si del análisis de los hechos denunciados considera que podría estarse afectando intereses de terceros.

Artículo 52°.- Mecanismos alternativos de solución de conflictos

En cualquier estado del procedimiento, e incluso antes de admitirse a trámite la denuncia, las partes podrán someterse a arbitraje, mediación, conciliación o mecanismos mixtos de resolución de disputas a cargo de

terceros. Si las partes decidieran someterse a arbitraje, podrán suscribir inmediatamente el convenio arbitral correspondiente, de conformidad con el reglamento que para dicho efecto aprobará el Directorio del Indecopi. En cualquier caso, la autoridad administrativa del Indecopi podrá continuar de oficio con el procedimiento, si del análisis de los hechos denunciados considera que podría estarse afectando intereses de terceros.

Artículo 53°.- Medios probatorios

Las partes podrán ofrecer los siguientes medios probatorios:

- a) Pericia;
- b) Documentos, incluyendo todo tipo de escritos, impresos, fotocopias, planos, cuadros, dibujos, radiografías, cintas cinematográficas y otras reproducciones de audio y vídeo, la telemática en general y demás objetos y bienes que recojan, contengan o representen algún hecho, una actividad humana o su resultado; y,
- c) Inspección.

Excepcionalmente podrán actuarse pruebas distintas a las mencionadas, sólo si a criterio de la autoridad administrativa competente, éstas revisten especial importancia para la resolución del caso.

Artículo 54°.- Inspección

En caso de que fuera necesaria la realización de una inspección, ésta será efectuada por la autoridad administrativa competente del Indecopi. Siempre que se realice una inspección deberá levantarse un acta que será firmada por quien estuviera a cargo de la misma, así como por los interesados, quienes ejerzan su representación o por el encargado del establecimiento correspondiente. En caso de que el denunciado, su representante o el encargado del establecimiento se negara a hacerlo, se dejará constancia de tal hecho.

Artículo 55°.- Auxilio de la Policía Nacional

Tanto para la actuación de las pruebas como para la realización de las diligencias, la autoridad administrativa del Indecopi podrá requerir la intervención de la Policía Nacional, sin necesidad de notificación previa, a fin de garantizar el cumplimiento de sus funciones.

Artículo 56°.- Actuación de medios probatorios. Insuficiencia de pruebas

Si de la revisión de la información presentada, la autoridad administrativa del Indecopi considera necesario contar con mayores elementos de juicio, notificará a las partes a fin de que éstas absuelvan las observaciones que se establezcan en el plazo que aquélla determine, o actuará las pruebas de oficio que considere necesarias. Las partes deberán absolver las observaciones por escrito, acompañando los medios probatorios que consideren convenientes.

Artículo 57°.- Informe oral

La autoridad administrativa del Indecopi pondrá en conocimiento de las partes que lo actuado se encuentra expedito para resolver. Las partes podrán solicitar la realización de un informe oral ante ésta, dentro del plazo de cinco (5) días. La actuación o denegación de dicha solicitud quedará a criterio de la autoridad administrativa del Indecopi, según la importancia y trascendencia del caso.

Artículo 58°.- Base de cálculo para las multas

El monto de las multas que aplique la autoridad administrativa del Indecopi será calculado en base a la UIT vigente en el día del pago voluntario, o en la fecha en que se haga efectiva la cobranza coactiva.

Artículo 59°.- Reducción de la multa

La sanción de multa aplicable será rebajada en un veinticinco por ciento (25%) cuando el infractor cancele el monto de la misma con anterioridad a la culminación del término para impugnar la resolución que puso fin a la instancia, en tanto no interponga recurso impugnativo alguno contra dicha resolución.

Artículo 60°.- Gastos por actuación de medios probatorios

Los gastos por los peritajes realizados, actuación de pruebas, inspecciones y otros derivados de la tramitación del proceso serán asumidos inicialmente por el Indecopi.

En todos los casos, la resolución final determinará si los gastos deben ser asumidos por alguna de las partes, y reembolsados al Indecopi, de manera adicional a la sanción que haya podido imponerse.

Artículo 61°.- Registro de sanciones

El Indecopi llevará un registro de las sanciones aplicadas, con la finalidad de informar al público, así como para detectar casos de reincidencia.

Artículo 62°.- Sanciones

Las infracciones a los derechos de los pueblos indígenas que poseen conocimientos colectivos darán lugar a la aplicación de una sanción de multa, sin perjuicio de las

medidas que se dicten para la cesación de los actos de infracción o para evitar que éstos se produzcan.

Las multas que podrán establecerse serán de hasta ciento cincuenta (150) UIT. La imposición y graduación de las multas será determinada, teniendo en consideración el beneficio económico obtenido por el infractor, el perjuicio económico ocasionado

a los pueblos y comunidades indígenas y la conducta del infractor a lo largo del procedimiento. La reincidencia se considerará circunstancia agravante, por lo que la sanción aplicable no deberá ser menor que la sanción precedente.

Si el obligado no cumple en un plazo de tres (3) días con lo ordenado en la resolución que pone fin a un procedimiento, se le impondrá una sanción de hasta el máximo de la multa permitida, según los criterios a los que hace referencia el artículo precedente, y se ordenará su cobranza coactiva. Si el obligado persiste en el incumplimiento, se podrá duplicar sucesiva e ilimitadamente la multa impuesta hasta que se cumpla la resolución, sin perjuicio de poder denunciar al responsable ante el Ministerio Público para que éste inicie el proceso penal que corresponda.

TÍTULO XII

DE LA AUTORIDAD NACIONAL COMPETENTE Y DEL CONSEJO ESPECIALIZADO EN LA PROTECCIÓN DE CONOCIMIENTOS INDÍGENAS

Artículo 63°.- Autoridad Nacional Competente

La Oficina de Inventiones y Nuevas Tecnologías del Instituto Nacional de Defensa de la Competencia y de la Protección de la Propiedad Intelectual (Indecopi) es competente para conocer y resolver en primera instancia todo lo relativo a la protección de los conocimientos colectivos de los pueblos indígenas.

La Sala de Propiedad Intelectual del Tribunal de Defensa de la Competencia y de la Propiedad Intelectual del Indecopi conocerá y resolverá los recursos de apelación en segunda y última instancia administrativa.

Artículo 64°.- Funciones de la Oficina de Inventiones y Nuevas Tecnologías

Serán funciones de la Oficina de Inventiones y Nuevas Tecnologías del Indecopi:

- a) Llevar y mantener el Registro de Conocimientos Colectivos de los Pueblos Indígenas.
- b) Llevar y mantener el Registro de Licencias de Uso de Conocimientos Colectivos.
- c) Evaluar la validez de los contratos de licencias sobre conocimientos colectivos de los pueblos indígenas, tomando en cuenta la opinión del Consejo especializado en la protección de conocimientos indígenas.
- d) Ejercer las demás funciones que se le encargan mediante el presente dispositivo.

Artículo 65°.- Consejo especializado en la protección de conocimientos indígenas

El Consejo especializado en la protección de conocimientos indígenas estará integrado por 5 (cinco) personas especializadas en el tema, 3 (tres) designadas por las organizaciones representativas de los pueblos indígenas, y 2 (dos) designadas por la Comisión Nacional de los Pueblos Andinos, Amazónicos y Afroperuanos, quienes asumirán el cargo de miembros de este Consejo de manera ad honórem.

Artículo 66°.- Funciones del Consejo especializado en la protección de conocimientos indígenas

Serán funciones del Consejo especializado en la protección de conocimientos indígenas:

- a) Monitorear y hacer seguimiento de la aplicación de este régimen de protección;
- b) Apoyar al Comité Administrador del Fondo para el Desarrollo de los Pueblos Indígenas, y a la Oficina de Inventiones y Nuevas Tecnologías del Indecopi, en el desempeño de sus funciones;
- c) Emitir opinión en cuanto a la validez de los contratos de licencias sobre conocimientos colectivos de los pueblos indígenas;
- d) Brindar asesoría a los representantes de los pueblos indígenas que así lo soliciten en asuntos vinculados con este régimen, en particular, en la elaboración y ejecución de proyectos, en el marco de este régimen; y
- e) Supervisar al Comité Administrador del Fondo para el Desarrollo de los Pueblos Indígenas en el ejercicio de sus funciones.

Para estos efectos, podrá exigir al Comité Administrador cualquier tipo de información relacionada con la administración del Fondo, ordenar inspecciones o auditorías, examinar sus libros, documentos y designar un representante que asista con voz pero sin voto a sus reuniones. La resolución que ordene la práctica de una auditoría deberá ser motivada. Estará facultada para imponerles sanciones, tales como la amonestación, la suspensión temporal en el ejercicio de sus funciones o la separación definitiva de sus cargos, en caso de que infrinjan las disposiciones del presente régimen o su reglamento, o que incurran en hechos que afecten los intereses de los pueblos y comunidades indígenas, sin perjuicio de las sanciones penales o de las acciones civiles que correspondan.

TÍTULO XIII RECURSOS ADMINISTRATIVOS

Artículo 67°.- Recurso de reconsideración

Contra las resoluciones expedidas por la Oficina de Inventiones y Nuevas Tecnologías puede interponerse recurso de reconsideración, dentro de los quince (15) días siguientes a su notificación, el mismo que deberá ser acompañado con nueva prueba.

Artículo 68°.- Recurso de apelación

Procede interponer recurso de apelación únicamente contra la resolución que ponga fin a la instancia, expedida por la Oficina de Inventiones y Nuevas Tecnologías, dentro de los quince (15) días siguientes a su notificación. No procede interponer recurso de apelación contra las resoluciones de primera instancia que imponen medidas cautelares o preventivas.

Artículo 69°.- Sustento de recurso de apelación

Los recursos de apelación se interpondrán cuando la impugnación se sustente en diferente interpretación de las pruebas producidas o cuando se trate de cuestiones de puro derecho, debiendo ser sustentados por ante la Oficina de Inventiones y Nuevas Tecnologías. Verificados los requisitos establecidos en el presente artículo y en el Texto Único de Procedimientos Administrativos (TUPA) del Indecopi, la Oficina deberá conceder la apelación y elevar los actuados a la segunda instancia administrativa.

TÍTULO XIV PROCEDIMIENTO ANTE EL TRIBUNAL

Artículo 70°.- Trámite en segunda instancia

Recibidos los actuados por la Sala de la Propiedad Intelectual del Tribunal de Defensa de la Competencia y de la Propiedad Intelectual del Indecopi, se correrá traslado de la apelación a la otra parte para que cumpla con presentar sus argumentos, dentro del plazo de quince (15) días.

Artículo 71°.- Medios probatorios e informe oral

No se admitirán medios probatorios, salvo documentos.

Sin perjuicio de ello, cualquiera de las partes podrá solicitar el uso de la palabra, debiendo especificar si éste se referirá a cuestiones de hecho o de derecho. La actuación o denegación de dicha solicitud quedará a criterio de la Sala del Tribunal. Citadas las partes a informe oral, éste se llevará a cabo con quienes asistan a la audiencia.

DISPOSICIONES COMPLEMENTARIAS

PRIMERA.- Independencia de la legislación vigente en materia de propiedad intelectual

Este régimen especial de protección es independiente de lo previsto en las Decisiones 345 de la Comisión del Acuerdo de Cartagena y 486 de la Comisión de la Comunidad Andina, en los Decretos Legislativos Núms. 822 y 823 y en el Decreto Supremo N° 008-96-ITINCI.

SEGUNDA.- Presentación del contrato de licencia como requisito para obtener una patente de invención

En caso de que se solicite una patente de invención relacionada con productos o procesos obtenidos o desarrollados a partir de un conocimiento colectivo, el solicitante estará obligado a presentar una copia del contrato de licencia, como requisito previo para la concesión del respectivo derecho, a menos de que se trate de un conocimiento colectivo que se encuentra en el dominio público. El incumplimiento de esta obligación será causal de denegación o, en su caso, de nulidad de la patente en cuestión.

DISPOSICIÓN TRANSITORIA

ÚNICA.- Conformación del Comité Administrador del Fondo para el Desarrollo de los Pueblos Indígenas

La designación de los miembros del Comité Administrador del Fondo para el Desarrollo de los Pueblos Indígenas estará a cargo de la Comisión Nacional de los Pueblos Andinos, Amazónicos y Afroperuanos, en coordinación con las organizaciones representativas de los pueblos indígenas.

DISPOSICIÓN FINAL

ÚNICA.- Reglamento del Fondo para el Desarrollo de los Pueblos Indígenas

Dentro del plazo de noventa (90) días contados a partir de la entrada en vigencia de la presente Ley, las organizaciones representativas de los pueblos indígenas alcanzarán un proyecto de Reglamento al Comité de Administración del Fondo para el Desarrollo de los Pueblos Indígenas a que se contrae el Artículo 39° de la presente Ley, para su aprobación.

Dicho Reglamento deberá regular la organización y funcionamiento del Fondo para el Desarrollo de los Pueblos Indígenas, en el cual se determinará el monto o porcentaje máximo de los recursos del fondo que se podrá destinar a sufragar los gastos que irroge su administración.

Comuníquese al señor Presidente de la República para su promulgación.

En Lima, a los veinticuatro días del mes de julio de dos mil dos.

CARLOS FERRERO

Presidente del Congreso de la República

HENRY PEASE GARCÍA

Primer Vicepresidente del Congreso de la República

AL SEÑOR PRESIDENTE CONSTITUCIONAL DE LA REPÚBLICA

POR TANTO:

Mando se publique y cumpla.

Dado en la Casa de Gobierno, en Lima, a los ocho días del mes de agosto del año dos mil dos.

ALEJANDO TOLEDO

Presidente Constitucional de la República

LUIS SOLARI DE LA FUENTE

Presidente del Consejo de Ministros



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